

DRAFT
ENVIRONMENTAL IMPACT REPORT

DREYER'S GRAND ICE CREAM
OFFICE PROJECT
ER 88.17

▼
SCH NO. 86042210

CITY OF OAKLAND

EIP ASSOCIATES

MARCH 1989



File No. ER88.17
Ref. No. _____

City of Oakland
Oakland, California

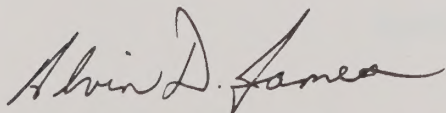
DRAFT ENVIRONMENTAL IMPACT REPORT FOR:
Dreyer's Grand Ice Cream Office Project
(Project Name)
California Environmental Quality Act (CEQA)

RELEASE OF REPORT FOR PUBLIC REVIEW

The City of Oakland is hereby releasing this draft Environmental Impact Report (EIR), finding it to be accurate and complete and ready for public review. Members of the public are invited to respond to the EIR. Comments should focus on the sufficiency of the EIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Please address all comments to the Oakland City Planning Commission, 6th Floor, City Hall, One City Hall Plaza, Oakland, California, 94612. Comments should be received no later than May 8, 1989.

- ☒ The City Planning Commission will conduct a public hearing on the draft EIR on to be at scheduled in Room 115, City Hall.
- ☐ After all comments are received, a final EIR will be prepared and considered for acceptance by the City Planning Commission on to be scheduled at in Room 115, City Hall.
- ☒ The draft EIR is attached.
- ☐ The draft EIR is available at the City Planning Department.

If you have any questions, please telephone the City Planning Department at 273- 3911. Ask for Willie Yee Jr., Associate Planner



ALVIN D. JAMES
Director of City Planning

DATE: March 24, 1989

File No. ER88.17
Ref. No. _____

City of Oakland
Oakland, California

DRAFT ENVIRONMENTAL IMPACT REPORT FOR:
Dreyer's Grand Ice Cream Office Project
(Project name)
California Environmental Quality Act (CEQA)

SUMMARY

A. GENERAL INFORMATION

Project Title Dreyer's Grand Ice Cream Office Project
Location 5929 College Avenue
Project Sponsor Dreyer's Grand Ice Cream
Address 5929 College Avenue, Oakland, CA 94618

B. PROJECT DESCRIPTION:

See Section 3, Page 3-1

C. SUMMARY OF ENVIRONMENTAL CONSEQUENCES OF THE PROJECT:

See Section 1, Page 1-1

D. POSSIBLE MITIGATION MEASURES TO MINIMIZE ANY ADVERSE EFFECTS OF THE PROJECT:

Land Use, p. 4-11	Air Quality, p. 4-78
Geology, p. 4-16	Visual Quality, p. 4-98
Hydrology, p. 4-25	Public Services, pp. 4-101, 4-102, 4-103
Traffic, p. 4-53	4-104
Noise, p. 4-67	Energy, p. 4-114

E. AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONSULTED:

See Section 8, Page 8-1

F. PUBLIC AGENCIES HAVING JURISDICTION BY LAW OVER THE PROJECT:

City of Oakland

G. PRELIMINARY DRAFT EIR PREPARED BY: Oakland City Planning Department
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Oakland, CA 94612
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DREYER'S GRAND ICE CREAM

OFFICE PROJECT

DRAFT

ENVIRONMENTAL IMPACT REPORT

Prepared for the

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March, 13, 1989

**SCH NO. 86042210
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1 SUMMARY

1.1 PROJECT DESCRIPTION

Dreyer's Grand Ice Cream is proposing to replace its existing factory and office/retail facility at 5929 College Avenue with a new facility that would house its corporate headquarters and provide new ground floor retail space. All existing buildings on the project site would be removed. The proposed project would involve a new three-story, 59,108 sq. ft. building (including 9,999 sq. ft. of ground floor retail space and 49,109 sq. ft. of office space) with frontage along College Avenue. The new building would have approximately 150 office, nine retail, and five restaurant employees, for a total of 164 employees on the site. The project would also include an approximately 41,275 sq. ft. parking area, containing a total of 132 parking spaces. The roof of the new building would rise 35 feet at its highest point and would have a four foot parapet.

The proposed project would require the removal of all the structures on the site, including 10,800 sq. ft. of office/retail use fronting College Avenue; 48,500 sq. ft. of manufacturing and warehouse space at 6036 and 6040 Claremont Avenue; two unoccupied single-family residences at 5957 and 5963 Chabot Road; two vacant buildings, that were converted from residential to office use, at 6044 and 6046 Claremont Avenue; two parking lots (accessed from College Avenue and Chabot Road) containing a total of 35 parking spaces; and three loading docks. No manufacturing use would remain on the site. No businesses or residents would be displaced as a result of the project.

The proposed project would add 40,460 sq. ft. of office space, increase retail space on the site by 5,649 sq. ft., and reduce manufacturing space by 48,500 sq. ft. The number of off-street parking spaces would increase by 97, and the number of employees would increase by 64. Two unoccupied single-family residences would be removed from the site.

1.2 LAND USE AND RELATIONSHIP TO PLANS AND POLICIES

SETTING

The proposed project site is located in the Rockridge District of North Oakland. The area's main feature is the commercial strip along College Avenue. Residential uses, primarily single-family, are located to the east and west of College Avenue. To the north of the site is the United Presbyterian Church and its annex. Land uses fronting both sides of College Avenue to the north and south of the proposed site consist mostly of small retail and office space. To the south of Dreyer's manufacturing facility fronting on Claremont Avenue is Yoshi's Nightclub and Restaurant. The Rockridge BART Station is located a few blocks to the south. A Lucky's supermarket is located one block north of the BART station on College Avenue. The area east of College Avenue is primarily single-family residential. The areas north and west across Claremont Avenue, as well as south and west across Chabot Road, are also single-family residential.

Most of the proposed project site is located in the C-31 Special Retail Commercial Zone. A portion of the Chabot Road frontage is in the R-35 residential zone.

As stated in the City Zoning Regulations, the C-31 Zone "is intended to create, preserve, and enhance areas with a wide range of retail establishments servicing both short- and long-term needs in attractive settings oriented toward pedestrian comparison shopping, and is typically appropriate along important shopping streets having a special or particularly pleasant character."

The R-35 Special One-Family Residential Zone is "intended to create, preserve, and enhance areas containing a mixture of single- and two-family dwellings in desirable settings for urban living, and is typically appropriate to areas of existing lower or lower-medium density residential development."

IMPACTS

Under the proposed project, all existing buildings on the project site would be removed. No manufacturing use would remain on the site. No businesses or residents would be displaced as a result of the project. Two residential units on Chabot Road owned by Dreyer's would be removed; although owner occupied prior to their purchase by Dreyer's, these units have been unoccupied for over three years.

The project would replace the ice cream factory, a preexisting legal nonconforming use that would not be allowed under current zoning, with permitted and conditionally permitted uses.

A Major Conditional Use Permit would be needed for the following exceptions to the Oakland City Planning Code:

- o Accessory parking in an R-35 zone (Section 7011);
- o Parking at the ground level in a C-31 zone (Section 4482);
- o Open facility in a C-31 Zone (Section 4481(a));
- o Over 7,500 sq. ft. of commercial space in a C-31 zone (Section 4483);
- o General food sales in a C-31 zone (Section 4479(b)).

Design Review is also required for the proposed project.

The highest point of the office/retail building would be 35 feet, which is within the height limit of the C-31 Zone.

The proposed project complies with many of the existing plans and policies of the City of Oakland. It would allow Dreyer's to locate their corporate headquarters in Oakland and is, thus, in direct compliance with Oakland's goal to advance its position as a regional center of commerce. The project would remove the existing factory use and replace it with uses that are more compatible with the existing neighborhood, and would reduce residents' exposure to existing annoying noise. The proposed office and retail use of the site is in keeping with existing uses in the C-31 Zone. However, the project as proposed, would remove two existing unoccupied housing units, which would not comply with Oakland's policy to conserve housing and preserve existing neighborhoods.

Also, the scale of the proposed project is larger than many of the immediately surrounding land uses. A discussion of the development scale and site design is contained in the Visual Quality section of this report.

MITIGATION MEASURES

In order to conserve existing housing, the project sponsor has offered the two residential structures on Chabot Road to the City of Oakland at no cost for removal from the site to another residential location. In order to fully preserve the existing residential character of Chabot Road, the two houses should not be removed. However, if these houses are removed, the impact would be somewhat, but not completely, mitigated by extensive landscaping at the parking lot's Chabot Road frontage which would serve as an effective transition from the commercial frontage on College Avenue to the residential uses farther down Chabot Road. The existing trees and shrubs at the property line between the proposed Chabot Road parking lot and the existing residence should be maintained and augmented. Mitigation measures within the transportation and noise sections that address impacts that could change the character of the neighborhood should be included as conditions of project approval.

The parking lot's frontage on Chabot Road should be extensively landscaped to maintain the residential character of the area and serve as an effective transition from the commercial frontage on College Avenue to the residential uses farther down Chabot Road. The existing trees and shrubs at the property line between the proposed Chabot Road parking lot and the existing residence should be maintained and augmented.

1.3 GEOLOGY

SETTING

The project site slopes gently to the southwest. This site is underlain by as much as 6.5 feet of artificial fill, which is underlain by the Temescal Formation, consisting of unconsolidated sediments of Quaternary age (less than two million years old).

The project site is in a seismically active region. The nearest fault zone is the Hayward fault, located about one mile to the northeast.

IMPACTS

The proposed project would not affect the area's geology, aside from disturbing the underlying sediments for foundation construction. The existing geological and seismic conditions would impose constraints that would require special design considerations.

These concerns include differential settlement, shrink swell behaviour of expansive soils, ground acceleration from earthquakes and secondary seismic effects. No potential impacts relating to basement construction, temporary and permanent control of groundwater and the protection of adjacent structures have been identified in connection with the proposed project.

MITIGATION MEASURES

Friction pier foundations would be designed to compensate for weak, compressible foundation soils and to resist soil heave from expansive soils beneath the proposed building. These piers would be drilled to sufficient depths to penetrate through loose or weak sediments underlying portions of the project site.

Construction should take place during the summer months (May to October) to reduce the amount of runoff and erosion from the site.

To ensure the seismic integrity of the proposed project, the building should be designed to withstand the maximum potential groundshaking at the site related to a major earthquake along the nearby historically active faults.

1.4 HYDROLOGY

SETTING

The project site is located just north of the Harwood Branch of Temescal Creek, a perennial stream that has been almost completely enclosed in culverts through the Rockridge area of Oakland. Approximately 1,500 feet downstream of the project site, the Harwood Branch joins the main stream of Temescal Creek in a 10 x 12 foot reinforced concrete box culvert underneath the Grove-Shafter Freeway. Both Temescal Creek, designated Flood Control Line A, and the Harwood Branch, Line A-1, are maintained by the Alameda County Flood Control and Water Conservation District.

Surface runoff from the area surrounding the project site is collected within a subsurface network of drainage pipes (maintained by the City of Oakland) that discharge into either the Harwood Branch or directly into Temescal Creek at the freeway.

IMPACTS

The existing Dreyer's site is almost entirely covered by impervious surfaces. The only portion of the proposed project site that would experience a significant reduction of existing pervious surface is the 0.21 acre combination of two residential parcels on Chabot Road. This future parking area is now approximately 65% covered by buildings or pavement. Upon completion of the proposed project, it is conservatively estimated that only 10% of these two parcels would remain as landscaping or natural ground.

The quality of the stormwater runoff that leaves the project site could also be expected to decline somewhat as a result of the proposed project. Traces of oil, heavy metals, rubber particles, and debris would accumulate on the large surface parking lots. Each rainfall would wash these materials into the City's storm drain system. However, this is already a fully urbanized area, which only uses its surface water resources as stormwater conduits for final discharge into San Francisco Bay. As a result, this marginal increase of contaminants would probably not be significant within the Rockridge neighborhood, but it would contribute to the gradual degradation of San Francisco Bay.

The occasional milk spills experienced at the College Avenue loading dock would also be eliminated by the proposed project. All manufacturing would be removed from the site, so there would no longer be any accidental washing of milk or milk products into the storm drain sump to be pumped out to the street gutter.

It is not expected that the proposed construction would affect existing ground water conditions in the project vicinity. It appears unlikely the proposed project would have any effect on the episodes of localized subsidence that are occasionally reported in the immediate vicinity along Chabot Road.

MITIGATION MEASURES

The project engineer should prepare an erosion control plan that effectively prevents exposed soils from washing off-site into local gutters and storm drains during construction. In addition, if groundwater pumping is required, provisions should be made for the temporary, on-site detention of this water to allow sediments to settle out before off-site discharge. A schedule for the periodic cleaning of all sediment detention basins should be included in the erosion control plan.

1.5 TRAFFIC, CIRCULATION AND PARKING

SETTING

The project is located in the middle of the Rockridge Area in Oakland. Many people visit the area regularly to patronize the unique shops and restaurants. The well integrated community of homes and businesses draws many people to the area. Non-residents park their cars in the area and use BART, bus lines, and carpools to commute to work destinations in the East Bay and San Francisco. Commuters drive through the area to avoid the congestion on State Route 24 during the peak commute hours.

Traffic and parking conditions in the project area vary widely and change over the course of the day. Traffic and parking conditions on weekdays differ from those on weekends.

Existing Traffic Conditions

The key characteristics of the existing traffic conditions are:

- o College Avenue experiences commute hour traffic, but generally serves as a retail artery. It experiences 18,000 vehicles per day.
- o Claremont Avenue has pronounced commute hour peaks. It carries 16,000 vehicles per day.
- o There is good transit service in the immediate area provided by both BART and AC Transit.
- o Eight significant intersections in the project area were studied. All of them operate within acceptable Levels of Service during the morning and evening peak hours, except that Claremont/College operates at Level of Service F (Forced Flow, jammed conditions) during the evening peak hour.

Existing Parking Conditions

Prior to the implementation of the residential permit parking program in the area, two areas were studied: a larger "Rockridge Parking Study Area" and a more project-focused "Dreyers Parking Study Area." The off-street parking occupancy rate peaked at 88% during the mid-day for both areas. The on-street parking in the Dreyers Area peaked at 82% during the mid-day, while the larger Rockridge area peaked at 62%.

Existing Dreyer's Traffic

Currently 100 people are employed at the Dreyer's factory, office and ice cream store. The 70 employees working in the factory typically work an early shift, arriving before 7:15 a.m. and leaving before 3:45 p.m. There are approximately 30 employees who arrive between 7:45 a.m. and 8:45 a.m., and 26 who leave between 5:00 p.m. and 6:00 p.m. Ninety percent of all employees drive to work.

Approximately 682 person trips per day currently occur at the site. Of these, 416 are automobile trips and 114 are truck trips. During the a.m. and p.m. peak hours the site generates 37 and 44 vehicular trips, respectively.

Existing Dreyer's Parking

Currently Dreyers provides 35 off-street on-site parking spaces, plus five more off-street off-site spaces, for a total of 40 off-street spaces. The existing parking demand was determined by surveying the site, area and employees, and it was found to be 71 spaces. This is split as 46 long-term spaces and 25 short-term spaces. There is currently a demand for 31 on-street parking spaces, the 25 short-term spaces plus the six long-term spaces not satisfied by the off-street parking.

Truck activity occurs at three loading docks around the site. The total truck traffic is 114 trucks trips per day.

Pedestrian traffic in the area is light and on a typical weekday, "free flow" conditions exist at all the intersections during the a.m. and p.m. peak hours.

IMPACTS

Traffic Impacts

The proposed project would generate an additional 533 person trips and 334 daily auto trips. The project would eliminate 99 daily truck trips, for a total of 235 daily vehicular trips. It would add 46 auto trips during the morning peak hour and 77 auto trips during the evening peak hour, while eliminating ten truck trips from each peak hour.

The studied intersections were evaluated to see how they would operate with the project. All intersections were projected to continue operating during both peak hours within acceptable conditions with one exception; Claremont/College would continue to operate at Level of Service F ("Forced Flow", jammed conditions) during the evening peak hour. The p.m. peak hour traffic volume/capacity ratio is 1.00 with and without the project. The project traffic at Claremont/College in the p.m. peak hour is 0.3% of the total existing p.m. peak hour traffic at that intersection.

Addition of the vehicle trips from the proposed project would marginally affect some of the studied intersections, but in none of the cases would the project traffic cause a noticeable change in activity or Level of Service. Hence, no traffic impacts would occur with the proposed project. After evaluating the existing Dreyer's operations in Oakland and Lafayette, it was estimated that there would be a decrease of 99 truck trips or 87%.

Parking Impacts

The proposed project would provide 132 off-street parking spaces. A total demand of 135 spaces is estimated. Therefore there would be a future demand for on-street parking of three spaces, however, this is less than the current demand of 31 on-street spaces. There will also be three or four additional on-street spaces resulting from reconfigured driveways. The project therefore would improve parking in the area by approximately 35 parking spaces on-street.

Construction Impacts

Vehicle trip generation during construction during the morning peak would be about 25 vehicles, and virtually none during the evening peak. Parking demand is expected to be typically about 20 spaces, some of which would be provided for on-site, so demand for on-street parking during construction would be much less than current demand.

MITIGATION MEASURES

As there are no significant adverse traffic and parking impacts resulting from the project, no off-site mitigation measures are recommended. However, as part of the community's overall need for reduction in traffic and parking demand, Dreyers should implement a Transportation System Management (TSM) program consisting of marketing efforts to

encourage their employees to car pool, walk, ride bicycles or use transit. The TSM program should also encourage employees to use routes avoiding College Avenue and instead use Claremont Avenue. The TSM program could reduce parking demand to the point that all parking demand is provided for on-site.

1.6 NOISE

SETTING

To quantify noise levels in the study area, noise measurements were made at four locations over a 22- to 24-hour period. The major continuous noise sources are an axial fan located behind the factory in the middle of the block and the tri-tier freezer room located near the Chabot Road/College Avenue intersection. Traffic on Chabot Road, and College and Claremont Avenues is also a major noise source. The traffic on these streets includes truck and automobile traffic generated by the Dreyer's ice cream facility.

The noise environment at Measurement Location 1, representative of the dwellings closest to the existing Dreyer's ice cream factory, is dominated by the noise generated by the axial fan.

Site 2 was chosen to evaluate the noise environment at the front of the homes along Chabot Road. Noise levels here were dominated by traffic on Chabot Road. Mechanical equipment at the Dreyer's factory was audible at this location. During the 24-hour measurement survey, 22 events were measured with sound levels in excess of 75 dBA. According to the traffic estimates, approximately five of these events were Dreyer's ice cream trucks and the remaining 10 to 12 were either loud automobiles, garbage trucks, or other heavy trucks.

Noise levels at Site 3 were dominated by traffic on Claremont Avenue. The sound of the factory was inaudible at this location.

The noise environment at Site 4 is dominated by traffic on College Avenue. During the daytime, the sound of the tri-tier is masked by traffic noise. Between 2 a.m. and 5 a.m., however, it appears that background sound level is dominated by sound of this mechanical equipment. Even during these hours, maximum and average noise levels are dominated by traffic on College Avenue.

IMPACTS

This project involves the relocation elsewhere of the factory from the Oakland site. Relocating the factory would result in the elimination of truck delivery noise, noise generated by the tri-tier freezer and the axial fan and, the roof-top mounted mechanical equipment and all the other ancillary equipment and activities at the plant. The reduction in noise level would be dramatic at the home located on the north side of Chabot Road (noise measurement location 2). The background noise level behind the homes in this area would decrease by 5 to 15 dBA depending upon the proximity of the homes to the existing factory equipment. Noise levels will be reduced by a lesser but noticeable amount (three to ten dBA) outside the homes on the south side of Chabot Road. The noise environment along College Avenue and Claremont Avenue would continue to be dominated by the traffic on these streets. However, the eliminating of the truck trips, particularly the late night delivery, would reduce the number of louder events on these streets. The average noise level would not decrease.

The greatest change in noise would occur during the p.m. peak hour along Chabot Road. The hourly average noise level (L_{eq}) along this street would increase by one decibel after completion of the project. Traffic noise levels during other hours of the day on this street and during any hour of the day on Claremont Avenue and College Avenue would increase by less than one decibel.

The mechanical equipment associated with the office and retail building would represent a new noise source in the area. Mechanical equipment for the proposed office building is expected to consist of a roof top mounted boiler cooling tower and ancillary equipment. Based on the background noise level measured during the office hours in the area, the noise generated by this equipment would be barely audible outside of the nearest home if the equipment were selected so that the A-weighted noise level did not exceed 50 dBA at the nearest home.

Noise would also be generated by automobile activity in the proposed parking lot. Typical maximum noise levels generated by doors slamming, cars being started and engines revved range from 55 to 70 dBA at a distance of 25 feet. Based on these levels, activity in the parking lot would generate noise levels outside of homes along Claremont Avenue that would be below the level generated by traffic on Claremont Avenue. Noise levels inside

the back rooms of the Presbyterian church would occasionally reach 40 to 55 dBA with the windows open and 35 to 50 dBA with windows closed. These noise levels would not be acceptable in a church sanctuary but would be generally considered acceptable in an office environment. It appears that the back rooms in the church are used for offices and meeting rooms.

During construction, noise levels would be temporarily elevated in the area.

MITIGATION MEASURES

Construction of the building would be done with standard equipment. The foundation would not require driven piles. Construction noise impacts could be mitigated by limiting construction hours to 7 a.m. to 5 p.m. and allowing work on weekdays only. All equipment should be adequately muffled. If impact wrenches are used, it may be possible to reduce the noise generated by using nylon chucks. These reduce the metal-to-metal contact and the corresponding noise.

To mitigate the potential impact of the noise generated by any new mechanical equipment, the equipment should be selected or controlled so that the noise generated by new mechanical equipment not exceed 50 dBA at the nearest residence.

Although not considered a significant impact, noise generated from the parking lot on the church and on the adjacent office buildings could be mitigated somewhat by constructing a six-foot solid wood or masonry fence adjacent to the parking lot at this location. This would reduce noise generated by parking lot activity by five to ten decibels on the first floor of the church and on the first floor of the adjacent office buildings.

1.7 AIR QUALITY

SETTING

The Environmental Protection Agency (EPA) has established federal standards for five major criteria air pollutants: photochemical oxidants (ozone), carbon monoxide (CO), suspended particulates, nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). State ambient air quality standards for these pollutants were established in California starting in 1969. The federal and State standards provide acceptable durations for specific contaminant levels in order to protect sensitive receptors from adverse effects.

Regionally the most severe and complex air quality problem is the relatively high level of ambient ozone experienced during warm, meteorologically stable periods in the summer and autumn. Air quality in downtown Oakland is not in compliance with the State ozone standard. Ozone is not emitted directly from pollutant sources but forms in the atmosphere through a complex series of photochemical reactions.

In contrast to ozone, CO is a sub-regional problem in the Bay Area. CO is a non-reactive pollutant with one major source: motor vehicles violations of the eight-hour CO standard have been measured in downtown Oakland.

To deal with violations of CO and ozone standards in the region, the Bay Area Air Quality Management District, the Association of Bay Area Governments, and the Metropolitan Transportation Commission authored the 1982 Bay Area Air Quality Maintenance Plan. This plan called for the imposition of additional controls on stationary and mobile sources of ROG and CO, set forth a schedule for adopting and implementing these controls, projected attainment of national ambient standards for CO and ozone by 1987 and their maintenance below the standards through the year 2000. The key CO and ozone strategies in the AQMP include a motor vehicle inspection/maintenance program.

IMPACTS

Project air quality impacts comprise two categories: temporary impacts due to project construction and long-term impacts due to project operation.

Construction activities would create a temporary increase in dustfall, and therefore an increase in TSP concentrations, near the project site. Equipment and vehicles generate dust during clearing, excavation and grading. Construction vehicle traffic on unpaved surfaces also increases dust, as would wind blowing over exposed earth surfaces.

The federal 24-hour average particulate standard could be violated in the vicinity of construction. Residences adjacent to the project site would be especially susceptible to soiling nuisance

Construction vehicles and equipment and worker commute vehicles would emit exhaust at the construction sites, which would contribute to local and regional pollutant

concentrations, but the amount of the increase would not be significant and would not cause violations of any air quality standards.

Once the project is complete, emissions from vehicles associated with project operation would contribute to the regional air pollution burden. At 0.004% and 0.007% of the county totals, respectively, project ROG and NOx emissions would not be significant.

No present or future violations of the one-hour CO standard are predicted at any of the three intersections studied. However, existing violations of the eight-hour CO standard are forecast at the College/Claremont and College/Chabot intersections. CO air quality is expected to improve over the next two years due to the implementation of improved vehicular emission controls, but the CO standard violation at College/Claremont is expected to persist with or without the project because of the increase in traffic and congestion at that intersection. The primary causes of this violation would be the high cumulative traffic and Oakland's relatively high CO background. The maximum project contribution would be 0.1 ppm. The proposed project would thus contribute to the worsening of an existing violation. However, an increase of 0.1 ppm in the CO concentration at College/Claremont would probably not be measurable.

MITIGATION MEASURES

Dust emissions related to construction can be reduced approximately 50% by watering exposed earth surfaces during excavation, grading and construction activities. All construction contracts should require watering in late morning and at the end of the day; the frequency of watering should increase if wind speeds exceed 15 mph. Conditions of approval should also require daily cleanup of mud and dust carried onto street surfaces by construction vehicles. Throughout excavation activity, haul trucks should use tarpaulins or other effective covers. Upon completion of construction, contractors should take measures to reduce wind erosion. Replanting and repaving should be completed as soon as possible.

Implementation of measures identified to alleviate traffic impacts would also mitigate project air quality impacts.

1.8 VISUAL QUALITY

SETTING

College Avenue is a major transportation route through the cities of Oakland and Berkeley. It serves as a major retail and commercial corridor. Commercial areas occur repeatedly along College Avenue in linear arrangements, usually between intersecting arterial streets. These commercial areas are comprised of rows of mostly two- and three-story stucco wood-frame and brick pre-1940 buildings; most have flat roofs. Interspersed among commercial areas along College Avenue are multi-family dwellings of a variety of architectural styles, colors, and ages. These range in height from single-story residences to four-story apartment buildings.

College Avenue does not have a uniform architectural style, scale, or mass or tree planting scheme. However, most buildings are located at the front lot line and there is a street tree program. Street views consist of trees of varying varieties, sizes, and ages; buildings of diverse ages, colors, designs, uses, heights and widths; a variety of awnings in commercial areas; overhead utility wires; a constant flow of traffic; and cars parked on both sides of the street.

Claremont Avenue, another main transportation route through Oakland and Berkeley, crosses College Avenue diagonally at a six street intersection. Further west, it also intersects Chabot Road diagonally, forming a triangular block bounded by College Avenue, Chabot Road, and Claremont Avenue, which contains the project site.

The project site's College Avenue frontage consists of a two-story, mixed-use building of red brick, stucco, and shingles.

There are a variety of mostly older buildings immediately surrounding the project site on the west side of College Avenue. Adjacent and to the north is the United Presbyterian church designed by Julia Morgan in 1917.

The church and annex are eligible for the National Register of Historic Places. It is also eligible to become a City Landmark, although it has not yet been so designated by the Oakland Landmarks Preservation Board.

Across the street to the east is the College Square shopping complex (Figure 4.7-3). This modern one and one-half to two-story brown wood-frame building has a variety of retail establishments with large glass display windows, advertising signs and awnings all competing for attention.

The area to the west of the project site on Chabot Road contains a concentration of older one- and two-story, wood-frame, single- and multi-family bungalow-style houses with gabled roofs, a style prevalent in the 1920s and 1930s. The two single-family residences located on the project site are of this style; however, they have been vacant for over three years and are somewhat rundown. The residential structures on Chabot Road are consistent in terms of mass, scale, and uniform building setback.

The area surrounding the Dreyer's frontage on Claremont Avenue contains a mix of older apartment, industrial, and commercial buildings. The project site includes the older two-story brick and stucco ice cream factory building with metal roll-up door (for truck receiving) at 6036 Claremont; a newer, light colored three-story warehouse (also with metal roll-up door) at 6040 Claremont; and a two-story brick structure with red tile roof (formerly a residence, legally converted to office use) at 6046 Claremont. Another brick building at 6044 Claremont (behind 6046) is not fully visible from the street. Immediately to the north of the project site is an older stucco, four-unit apartment building. This two-story structure is set back approximately six to eight feet from the sidewalk. This building is owned by Dreyer's but is not part of the project site. Adjacent and south of the project site is Yoshi's nightclub and restaurant. It consists of a group of one- and two-story structures which have been added to the original frontage as the business has expanded.

In general, with the exception of the single-family residences on Chabot Road, the buildings adjacent to and surrounding the project site are of differing masses, scales, and architectural styles.

IMPACTS

Visual impacts of the proposed project would result from its physical configuration, construction materials, and parking layout. The project would alter the visual characteristics of College Avenue, Claremont Avenue, and Chabot Road. Principal areas

of concern regarding visual and design impacts include architectural compatibility of the proposed building with surrounding buildings, and mass and scale relationships between the project and adjacent structures as well as with the pedestrian environment.

The proposed project could be described as an urban, mixed-use development. The building would be three stories, with the third story stepped back, and would be stucco with a concrete frame. The exterior of the building would be finished in light, warm earthtones, and would have a metal roof. The windows would have white frames; clear glass would be used on the north side of the building; bronze tinted glass would be used on the south or parking lot side of the building.

The proposed structure would be the largest in scale and bulk on this block of College Avenue and would be visible from vantage points along the block. The continuous, long facade would differ from the majority of smaller 40- to 50-foot storefronts common to the older buildings immediately surrounding the project. The proposed project would be broken up at the pedestrian level, however, by several retail shops with a variety of related awnings, large display windows with clear glass, and an indentation in the facade containing planting and possibly seating.

The long facade of the building would be broken up by progressively terraced or stepped back roof lines and walls. It would appear as several clustered buildings when viewed from across the street. The proposed building would be in keeping with other buildings on the block in terms of exterior materials and color.

The proposed removal of the two surface parking lots on College Avenue and their replacement with the retail/office building would physically strengthen the pedestrian sidewalk environment.

Although the proposed building steps down to two stories at the corner of College Avenue and Chabot Road, its scale is still larger than that of the smaller one-story building on the adjacent corner across Chabot.

Portions of the project would be seen from the residential area on Chabot Road. The retail frontage along Chabot Road would be visible from residences and by pedestrians;

however, the frontage would be set back ten feet from the property line and would step down to two stories, softening the view of the corner.

The proposed building would be separated from the existing residential neighborhood by a parking lot, creating a spatial buffer between the two land uses. Views of the parking lot would be screened by new and existing vegetation. Views of the lot from the adjacent residence (owned by Dreyer's) would be screened by vegetation.

A small portion of the proposed project's three-story office area would be seen by pedestrians and motorists along Chabot Road. Most of this view, however, would be blocked by existing large trees and two-story homes.

The change in views of the project site from Claremont Avenue could be the most noticeable, as the two-story factory, three-story warehouse, and two-story brick buildings would all be replaced by a surface parking lot.

MITIGATION MEASURES

Recommended mitigation measures include breaking up the long, continuous building facade along College Avenue with design techniques that emulate existing patterns; incorporating more landscaped setbacks at the ground floor along College Avenue to soften building form at the streetwall level; and redesigning the parking lot to retain both residential structures in order to preserve the residential character of Chabot Road.

1.9 PUBLIC SERVICES, UTILITIES AND FISCAL IMPACT ANALYSIS

WATER SUPPLY

The water supply for the proposed project is under the jurisdiction of the East Bay Municipal Utilities District. Under the proposed project, the amount of water demand would decrease by 25,084 gallons per day (from 31,784 gpd to 6,700 gpd). This represents a decrease of approximately 80%, due to the relocation of the ice cream factory.

No mitigation measures would be necessary.

WASTEWATER

EBMUD's Special Sewerage Treatment District No. 1 was established in 1944 to provide for the treatment and disposal of sanitary and industrial wastewater from the cities of Oakland, Albany, Emeryville, Alameda, Piedmont, Berkeley, and Kensington. According to EBMUD representatives, the treatment facilities have sufficient capacity to meet the District's needs until the year 1995.

The City of Oakland owns and operates the sanitary sewers than convey wastewater to the EBMUD north interceptor pipe for transmission to the EBMUD Water Pollution Control Plant. Although the City operates separate storm and sanitary sewer systems, the sanitary system's capacity is exceeded during some winter storms due to infiltration of surface runoff into the sanitary collection system. The City is currently conducting an Infiltration and Inflow Study, and a rehabilitation program is under way to correct this problem.

Due to the removal of all factory operations from the site, the proposed project would generate 6,030 gallons of wastewater per day, a decrease in wastewater generation of 25,576 gallons per day. EBMUD indicates that local collection and treatment facilities are adequate to handle this flow, and that the project would not, therefore, have any adverse impact on the EBMUD system.

Prior to establishing a wastewater hookup, the project sponsor would be required to pay a Wastewater Capacity Fee to EBMUD. This one-time charge is based on an estimate of the project's wastewater volume. To set the fee amount, EBMUD uses the District's Standard Sanitary Wastewater unit charge which takes into consideration such factors as building, square footage, number of employees, and type and number of water fixtures. This fee represents the project's share of capital, operating and maintenance costs for the wastewater treatment facilities.

SOLID WASTE DISPOSAL

The City of Oakland contracts with the Oakland Scavenger Company for solid waste disposal services. Solid waste is presently picked up at the project site from a dumpster located behind a gate at the far end of the College Avenue parking area. The site's present solid waste production is approximately five dumpsters per week.

Based on the National Solid Wastes Management Association's office building generation rate standard of one pound per day per 100 gross square feet, the proposed project would generate an estimated 390 pounds of additional refuse each business day. The daily figure would represent less than 0.01% of Oakland Scavenger Company's current daily loading, an amount that Oakland Scavenger Company representatives characterize as an insignificant addition to the demand for service.

Oakland Scavenger Company representatives encourage the project sponsor to contact the company for suggestions regarding disposal area design and arrangement.

POLICE SERVICES

The Oakland Police Department provides 24-hour emergency response and preventive patrol services to the project site. The site is located in Beat 13 of the Department's District 2. Currently, there is a walking officer who patrols the College Avenue commercial area during the 7:00 a.m. to 3:00 p.m. shift.

With an increased number of employees and vehicles, the proposed project will have a greater security need. However, it is expected that such demand could be served with existing departmental resources.

The Police Department would require a Police Service Design Review so that the proposed project can incorporate environmental crime-deterrents such as appropriate lighting, signage, interior circulation patterns, landscaping, locks, and electronic protection.

To reduce the need for additional police or private security personnel, the proposed project should employ the deterrents suggested during the Police Service Design Review.

FIRE PROTECTION

The Oakland Fire Department provides fire protection service to the project area. The fire station nearest to the project site is Engine 19, located at 5776 Miles Avenue. If located at the station when the alarm is received, Engine 19 could be at the project site within three minutes.

Compliance with the regulations specified in the Oakland Fire Code, the Oakland Building Code, and Title 19 of the California Administrative Code, would ensure that the building incorporates all required fire safety design features.

To assess whether water pressure available through nearby fire hydrants is sufficient to service the site, the fire prevention bureau uses a formula that takes into consideration project construction type, gross building area, occupancy, construction type of adjacent structures, and whether the building has a sprinkler system. If the water pressure is inadequate, improvements to the water supply pipe system may be necessary.

The project sponsor should consult with EBMUD and with the Fire Department to ensure that the site is served by adequate water pressure. If system improvements are necessary, the project sponsor would be required to cover the expense.

FISCAL IMPACT ANALYSIS

The proposed project is subject to taxes levied by Alameda County and by the City of Oakland. The project site consists of five parcels. The site's current assessed value totals nearly \$7.9 million.

Property tax revenue will change based upon the net market value of improvements added to the property by the proposed project. Market value of these improvements, as approximated by construction cost estimates, would be about \$4.9 million. The project would also remove property currently assessed at \$5,635,820. Thus, there would be a decrease in property value created by the proposed project of \$735,820. This would represent a decrease in revenue of \$7,360 based upon the 1% property tax rate. The City of Oakland's allocation would be reduced by approximately \$2,560 due to the reduction in property value.

The City of Oakland collects a business license tax levied at a rate of forty-four cents per \$1,000 of gross payroll. If average annual salaries are conservatively estimated to be \$25,000 per year, the City would collect about \$700 per year in tax revenue from this source.

Sales tax associated with the project would be generated by retail and restaurant operations of the project and by employee purchases. The proposed project would generate a net increase of approximately \$5,800 annually in retail sales tax for the City of Oakland.

The City of Oakland collects a commercial rental tax at a rate of \$13.95 per \$1,000 of gross rental income. The proposed project would generate a net annual increase in commercial tax revenue of approximately \$1,900.

Police and fire services are the only public services representing significant potential capital or operating costs for the City of Oakland. Revenues for these services are from the General Fund and are not based directly upon services delivered or fees that are structured to recoup costs. It is not anticipated that additional resources would be required to serve the proposed project. As a result, the project would not represent increased public service costs to the City of Oakland.

The project sponsor would be billed on a fee-for-service basis for public utilities provided by Pacific Gas & Electric Company, the East Bay Municipal Utilities District, and the Oakland Scavenger Company. The net fiscal impact on these agencies would be zero.

The proposed project would generate a net gain in revenue annually of approximately \$5,840 for the City of Oakland.

Because the project would generate a net increase in revenue, no mitigation measures would be necessary.

1.10 ENERGY

SETTING

Pacific Gas and Electric Company (PG&E) supplies natural gas and electricity to customers in Oakland. A mixture of land uses currently exists on the project site. If built today, the maximum allowable energy consumption for space conditioning of the existing structures would be 2.9 billion Btu under Title 24 regulations.

Traffic generated by the existing land uses causes off-site energy consumption. Estimated consumption of gasoline from existing traffic generation is 36,143 gallons per year.

IMPACT

The primary project impact on energy resources would be the consumption of nonrenewable energy during project construction and operation. In addition, project-generated motor vehicle traffic would consume gasoline, oil and diesel fuel during transportation of residents and workers to and from the project site.

Demolition of existing buildings would require unknown amounts of energy. The energy for demolition and debris removal is not expected to be significant. The total estimated energy usage for construction of the proposed project would be 10.6 billion Btus.

Annual energy consumption of the project would be about 11.2 billion Btu, the equivalent of about 2,000 barrels of oil. This would be an increase in annual consumption of about 8 billion Btu per year. PG&E foresees no difficulty in supplying the project with sufficient natural gas and electricity from existing and planned sources.

Project-related automobile transportation would cause additional, off-site energy consumption. Project-related trips would require about 98,549 gallons of gasoline per year. Converted, this gasoline use would equal about 13.8 billion Btu per year, the energy equivalent of 2,446 barrels of oil.

An additional undetermined amount of transportation-related energy consumption would arise from project-related use of local transit systems, but would be more than offset by decreases in the energy consumption of private automobiles.

MITIGATION MEASURES

The project sponsor is required by law to demonstrate compliance with the stringent standards of the California Administrative Code, Title 24, prior to issuance of a building permit. New buildings also must comply with strict requirements of the Uniform Building Code regarding insulation, glazing, weather sealing, choice of building materials and water and energy conserving plumbing fixtures.

1.11 GROWTH-INDUCING EFFECTS

The proposed project would induce a small amount of local economic growth, but would only redistribute a small amount of economic activity within the region. Direct employment growth would be an addition of 64 new employees. As some of the additional employment would be transferred workers from Dreyer's Lafayette offices, the employment growth would not be a net regional gain, but it would be a gain for the City of Oakland.

The demand for housing in Oakland as a result of the proposed project is not expected to be significant.

1.12 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

No unavoidable significant environmental impacts resulting from the proposed project have been identified.

2 INTRODUCTION

2.1 TYPE OF DOCUMENT

This is an Environmental Impact Report (EIR) prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 as amended, and State and local implementing guidelines. This EIR constitutes a focused EIR pursuant to Section 15143 of the CEQA Guidelines and Section 21094 of the Public Resources Code.

2.2 PROJECT UNDER REVIEW

The project under review is the development of a corporate office headquarters and related facilities for the existing Dreyer's Grand Ice Cream Company. The project would include office and retail space, and would replace the existing ice cream factory facility, and research and development, office, and retail space.

2.3 FOCUS OF THE EIR

Pursuant to Section 15063 of the State CEQA Guidelines, an Initial Study was prepared by the City of Oakland Planning Department and is contained in Appendix A along with the Notice of Preparation (NOP). The NOP and Initial Study were prepared for a previous project that included office space, a parking structure, and a research and development building. The NOP was circulated for a review period of 30 days to other public agencies and City departments to define the focus of the EIR. Appendix A also contains a description of the effects determined not to be significant or potentially significant. The major issues on which this EIR focuses are those of traffic, circulation and parking, visual quality, land use and relationship to plans and policies, air quality, noise, geology, hydrology, public services, utilities, fiscal and energy consumption impacts.

2.4 INTENDED USE OF THE EIR

This EIR has been prepared to: (1) identify and evaluate the significant effects of the proposed project; (2) to inform the public and public decision makers about the possible significant effects of the project; (3) to identify possible ways to minimize the potential significant effects to an insignificant level; and (4) to describe alternatives to the project that would eliminate or reduce to an insignificant level any significant environmental effects.

The City of Oakland is the lead agency under CEQA and has required preparation of an EIR. The EIR is an informational document designed to assist the Oakland City Planning Commission, Planning Department staff, City Council and the local citizens in evaluating the project's likely impacts on the environment, and to consider mitigation measures for these impacts prior to taking action.

2.5 EIR PROCESS

This Draft EIR will be released for comment by the public, as well as by all responsible agencies and other interested jurisdictions, agencies and organizations for a period of 45 days. A public hearing will be held by the Oakland Planning Commission to receive comment on the adequacy and accuracy of the document. After the public hearing, written responses to all oral testimony and written comments on the Draft EIR will be prepared. The response to comments addendum, together with the Draft report, will comprise the Final EIR for the Dreyer's Grand Ice Cream Office Project. The Final EIR must be presented to the Oakland City Planning Commission for certification as to its completeness, accuracy and adequacy under CEQA before the Planning Commission acts on the project.

3 PROJECT DESCRIPTION

3.1 OBJECTIVES OF THE PROJECT SPONSOR

The project sponsor, Dreyer's Grand Ice Cream, is proposing a 59,108 sq. ft. office and retail building at 5929 College Avenue in the Rockridge district of Oakland. The project would replace the existing 19,724 sq. ft. ice cream factory, research and development facilities, office, retail, and single-family residential facilities presently on the site. The goal of the project sponsor is to consolidate Dreyer's Grand Ice Cream corporate office operations in Lafayette with the general offices in Oakland, forming a single headquarters office for the corporation.

3.2 PROJECT SITE

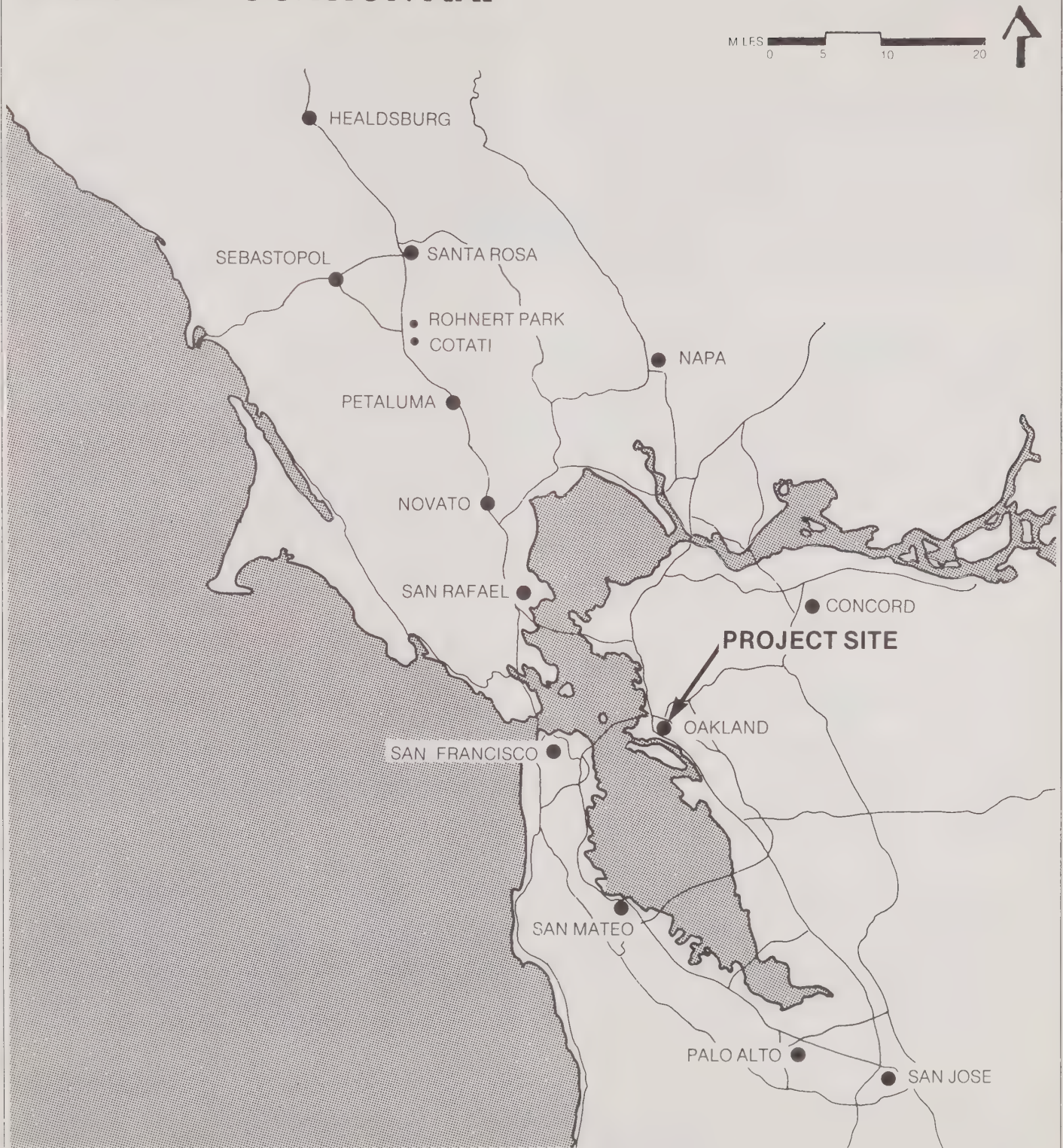
The 1.8-acre project site is located at 5929 College Avenue in the Rockridge district of Oakland (see Figures 3-1 through 3-3). The site has frontage on College Avenue, Chabot Road, and Claremont Avenue.

Dreyer's Grand Ice Cream was founded in Oakland by William Dreyer in 1928 and operated on Grand Avenue until 1947. The factory operation moved to this site in 1947 and has been in continuous operation since then. The factory is classified by the Zoning Regulations as a legal nonconforming use. It would not be permitted under the site's present zoning designations.

There are currently a variety of buildings located on the proposed project site. Dreyer's office and ground floor retail space occupy two masonry and wood frame two-story buildings at 5929 College Avenue. (A portion of the ground floor retail space has been converted to office space.) These buildings were previously apartment structures, converted to office use in 1974. They are interconnected by existing fire doors, and have gross floor areas of 5,000 and 5,800 sq. ft. These buildings provide approximately 9,800

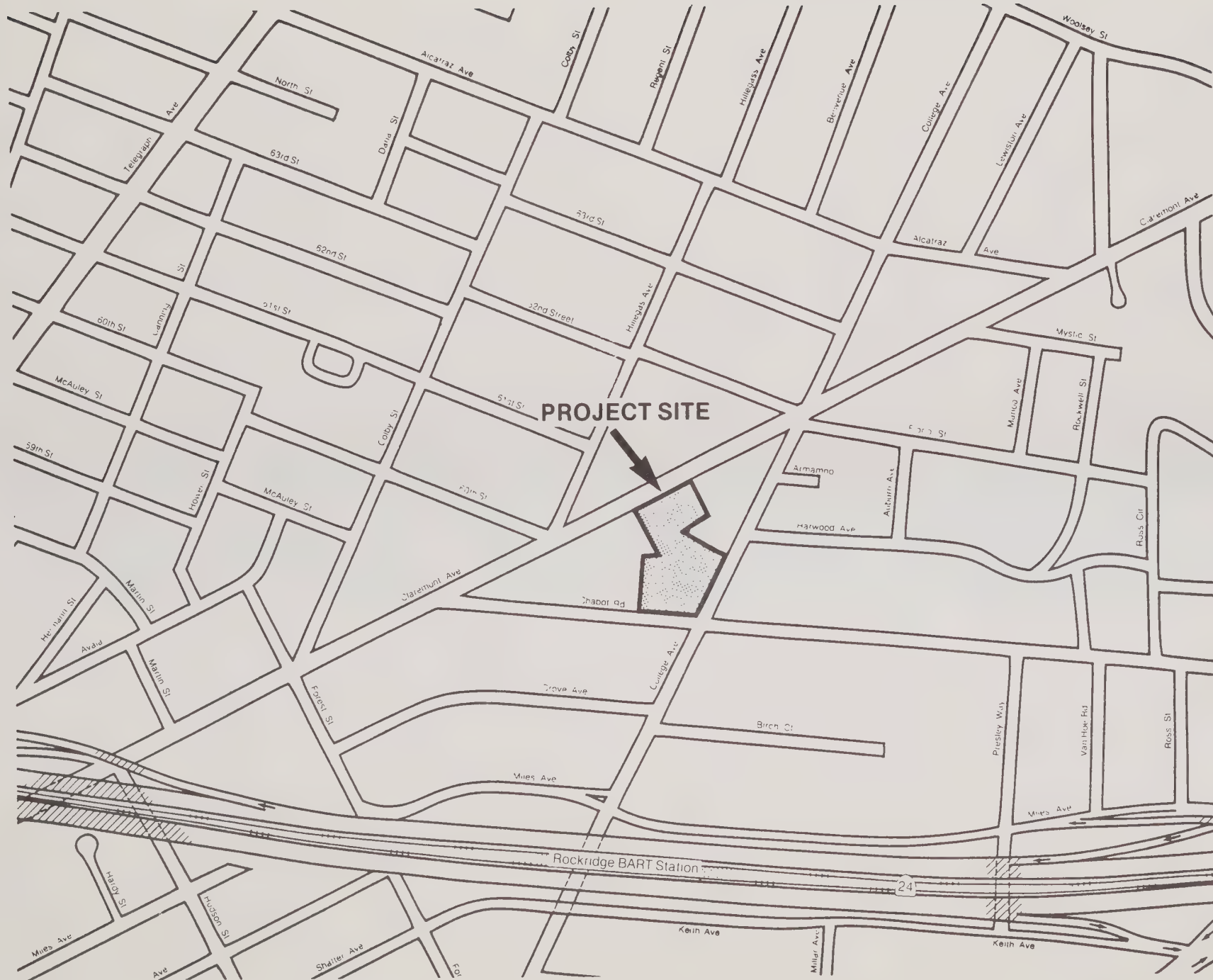
REGIONAL LOCATION MAP

FIGURE 3-1



PROJECT VICINITY MAP

FIGURE 3-2



sq. ft. of useable area, of which the company headquarters occupy 4,900 sq. ft. on the second floor and 1,550 sq. ft. to the rear of the ground floor. The remainder of the ground floor contains a 1,425 sq. ft. ice cream parlor, as well as 1,625 sq. ft. of area formerly used as office space for a travel agency and an insurance company. Dreyer's has received a Conditional Use permit to occupy this area with office space.

Dreyer's ice cream manufacturing space is set behind the office/retail space and extends through the block with entrances at 6036 and 6040 Claremont Avenue. The manufacturing space contains a total of 48,500 sq. ft.

There are presently two parking areas on either side of the College Avenue frontage. The first is an 18-space lot to the north of the office/retail buildings with access from College Avenue; the second is a 17-space lot (for company employees) located at the northwest corner of College Avenue and Chabot Road, with access from Chabot Road.

Three loading docks serve Dreyer's factory and office operations. Two are accessed through the existing parking lots (from College Avenue and Chabot Road); the third is within Dreyer's warehouse, and accessed from 6036 Claremont Avenue.

The proposed project site also includes two single-family residences to the west of the parking area at 5957 and 5963 Chabot Road containing 2,600 sq. ft. and 2,400 sq. ft., respectively. These units have been unoccupied for at least three years, and were owner-occupied prior to their purchase by Dreyer's. Dreyer's also owns the lot adjacent to the west (5941 Chabot) consisting of a single-family residence with a garage and studio behind. The residence and studio are both presently occupied. This lot is not included in the proposed project site, and Dreyer's currently has no plans to alter it.

To the northeast of Dreyer's manufacturing space fronting Claremont Avenue are two brick buildings (6044 and 6046 Claremont) containing three former residential units which were legally converted to 2,199 sq. ft. of office use approximately five years ago. The building in front is presently vacant; the building behind was used by Dreyer's for meetings until damaged by fire in March, 1988.

AERIAL PHOTOGRAPH: EXISTING SITE

FIGURE 3-3

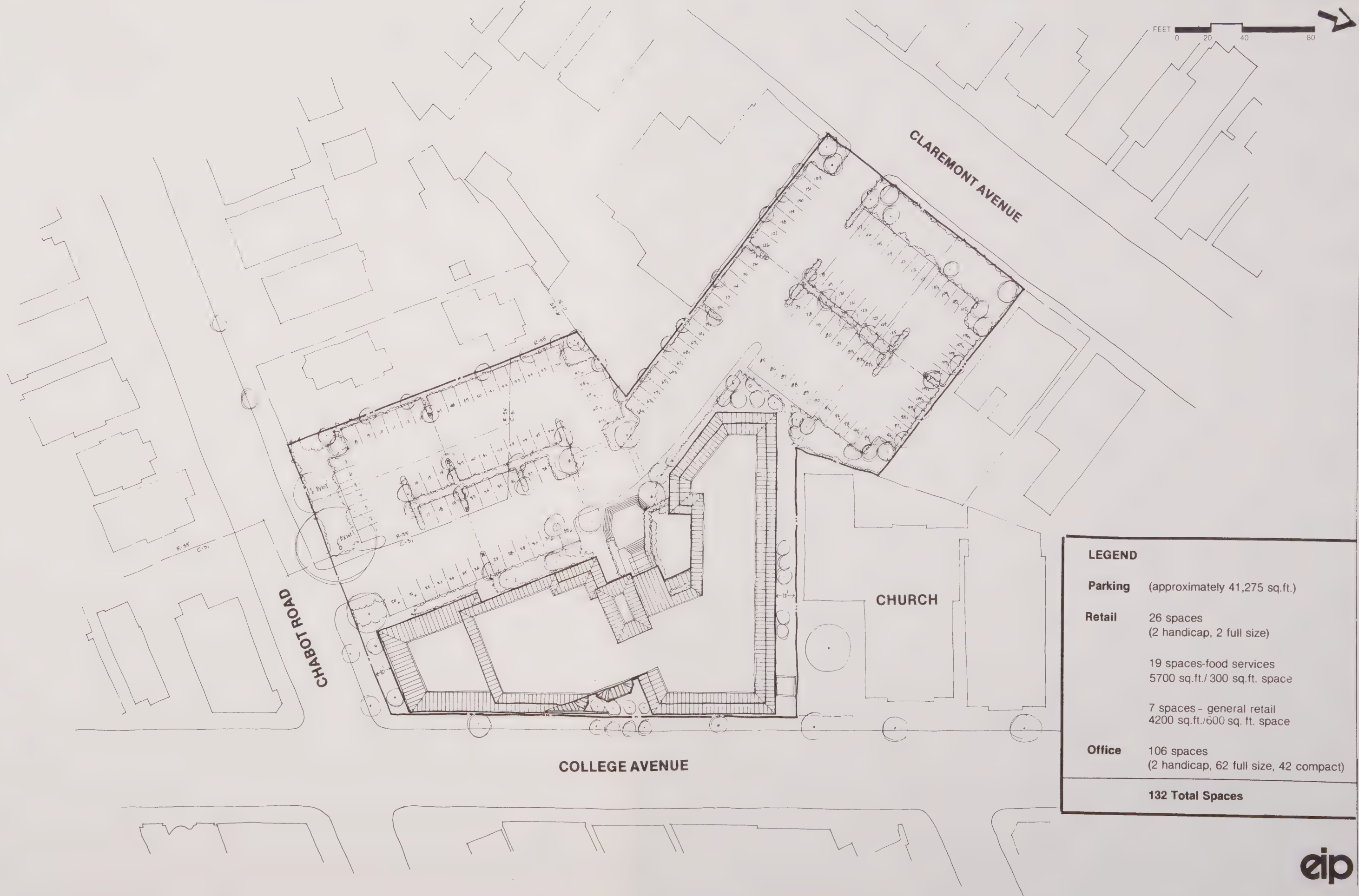
 Proposed Project Site



PROPOSED SITE PLAN

FIGURE 3-4

SOURCE: STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS

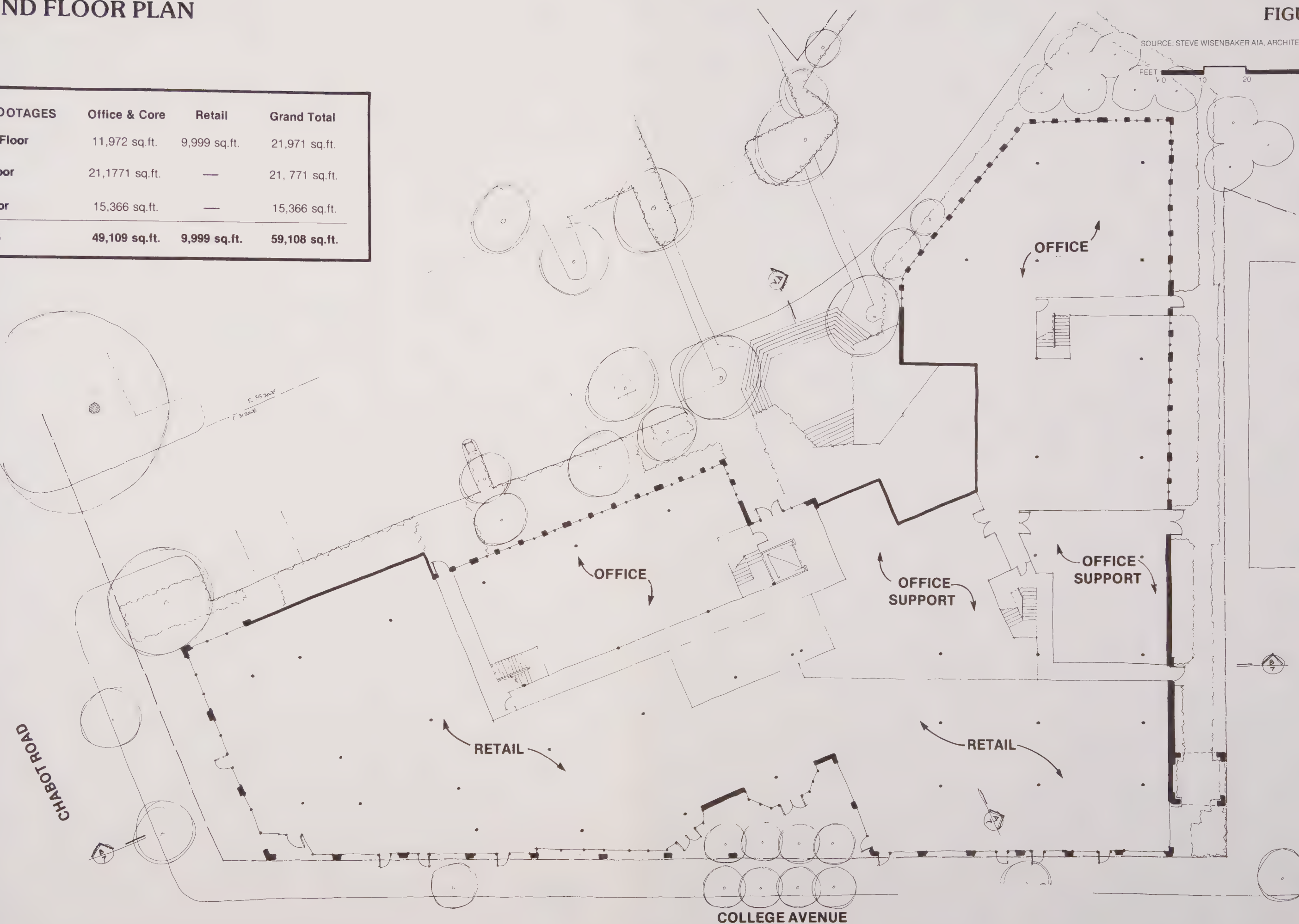


GROUND FLOOR PLAN

FIGURE 3-5

SOURCE: STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS

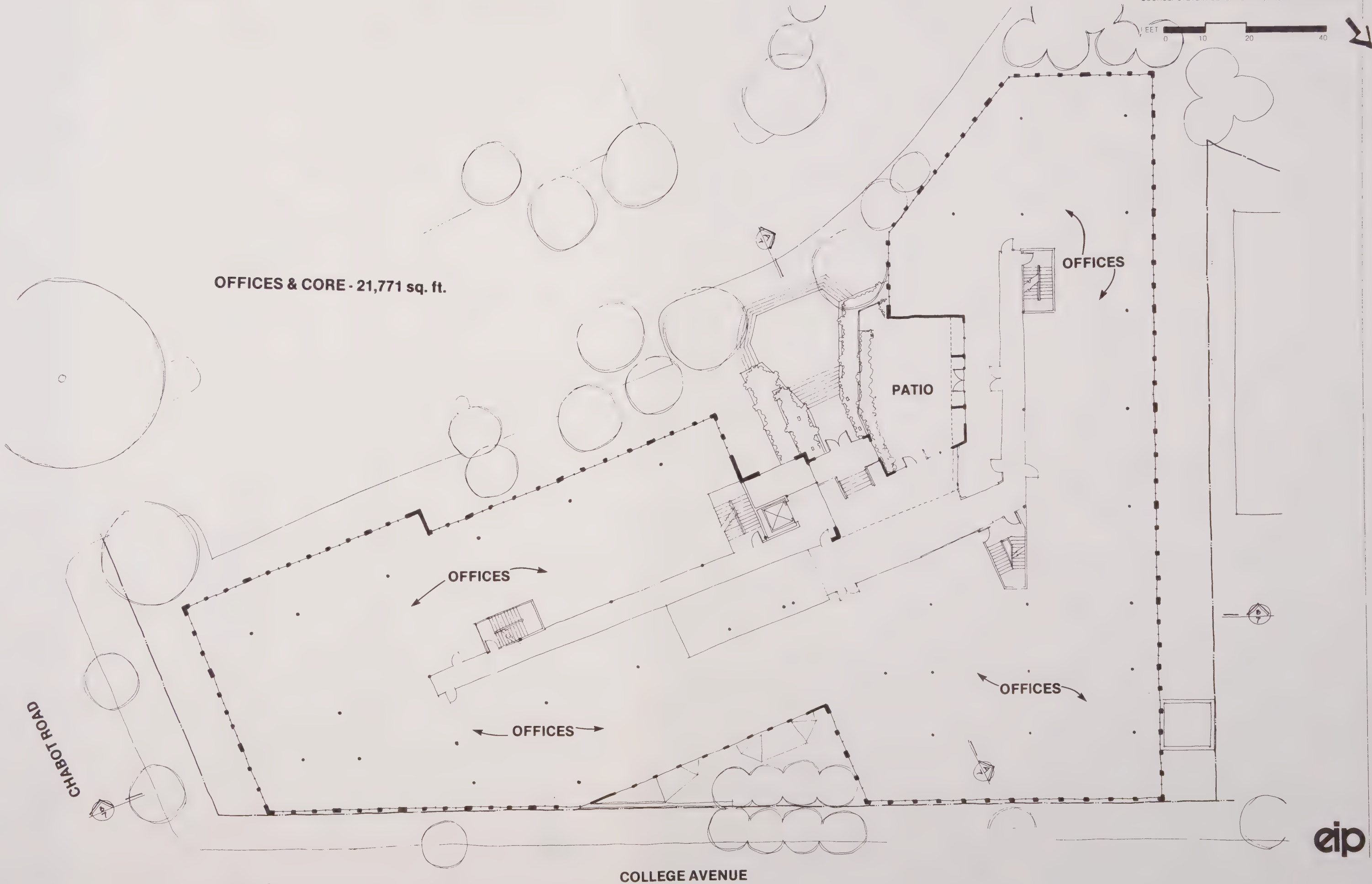
SQUARE FOOTAGES	Office & Core	Retail	Grand Total
Ground Floor	11,972 sq.ft.	9,999 sq.ft.	21,971 sq.ft.
Main Floor	21,1771 sq.ft.	—	21, 771 sq.ft.
Top Floor	15,366 sq.ft.	—	15,366 sq.ft.
TOTALS	49,109 sq.ft.	9,999 sq.ft.	59,108 sq.ft.



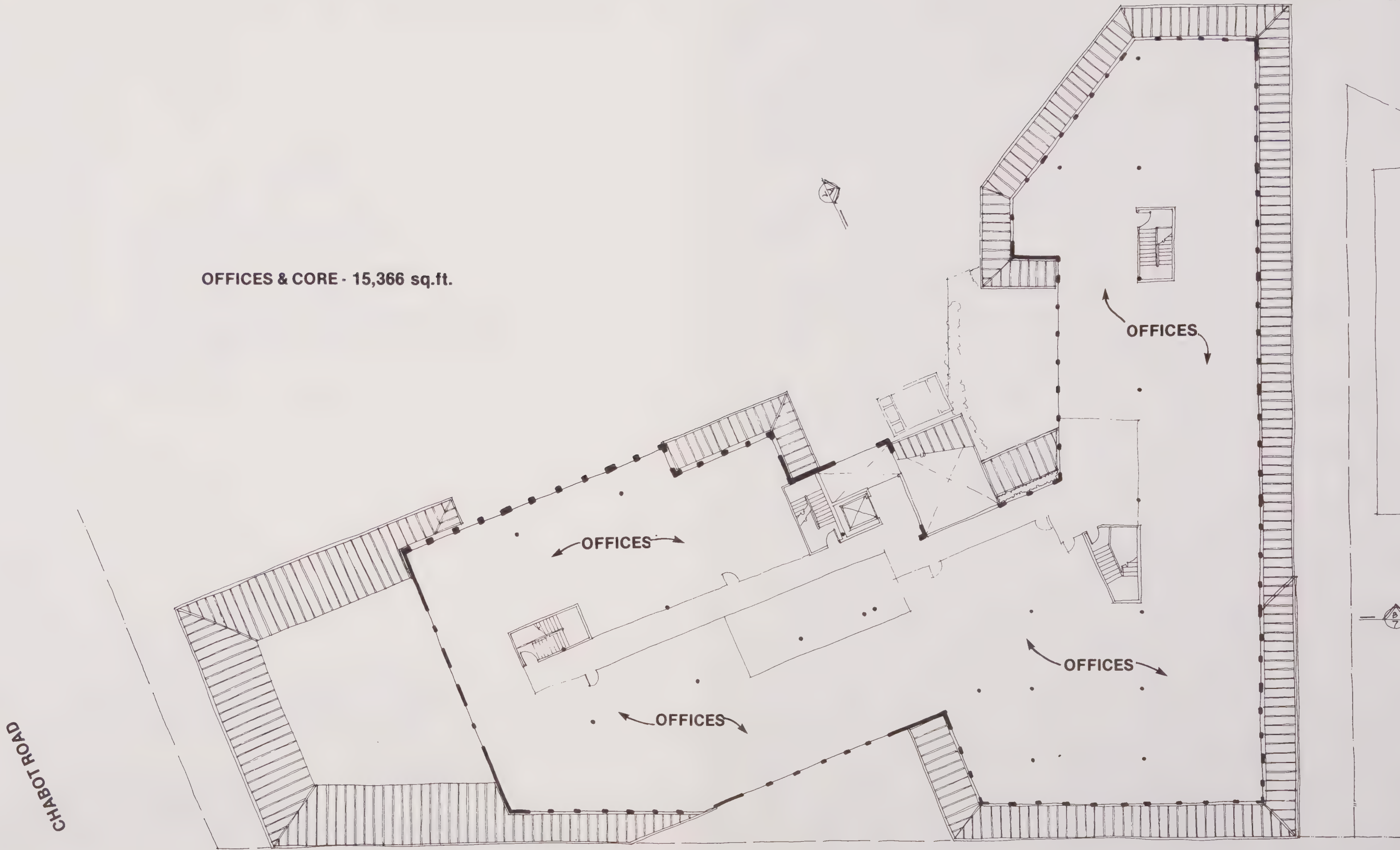
SECOND FLOOR PLAN

FIGURE 3-6

SOURCE: STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS



SOURCE STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS



SOURCE: STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS



CHABOT ROAD

RETAIL PLAZA

RETAIL

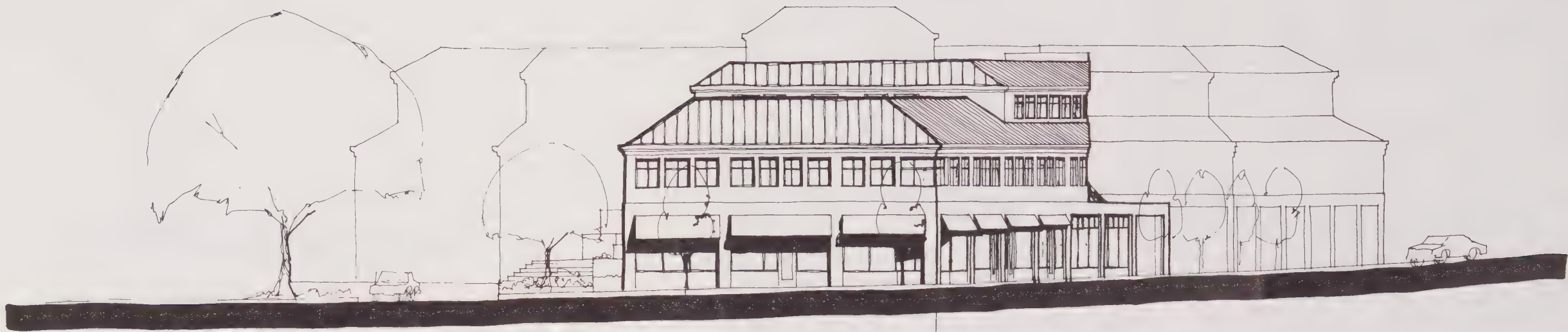
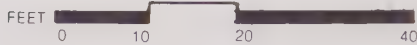
COLLEGE AVENUE ELEVATION



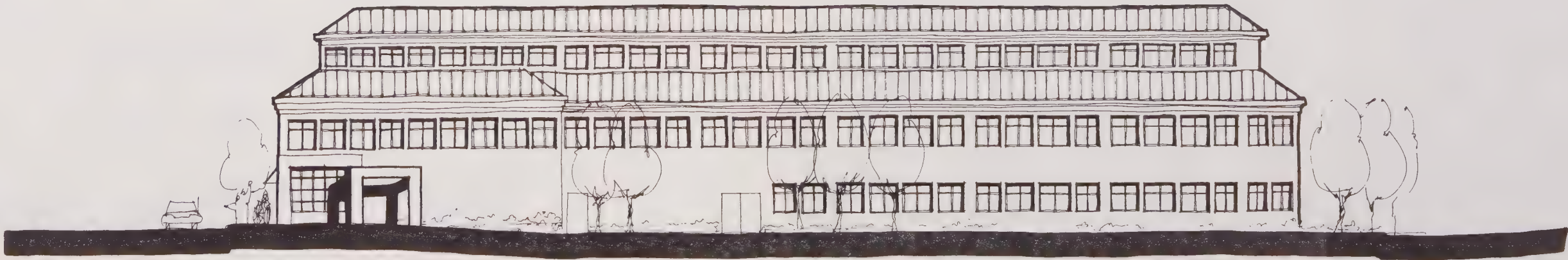
CHABOT ROAD

OFFICE ENTRY ELEVATION

SOURCE STEVE WISENBAKER AIA, ARCHITECTS & PLANNERS

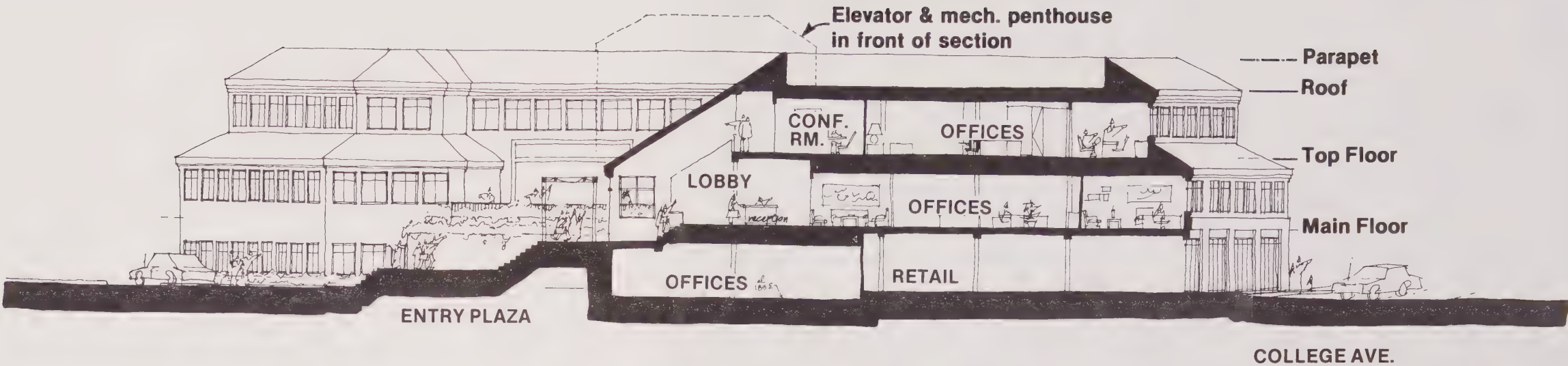
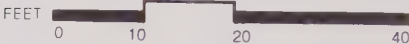


COLLEGE AVENUE
CHABOT ROAD ELEVATION

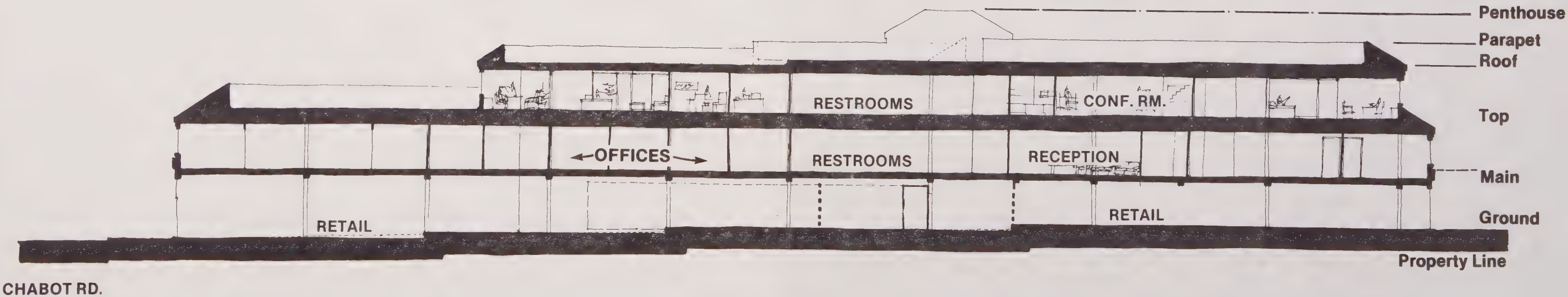


COLLEGE AVENUE

ELEVATION AT CHURCH PROPERTY LINE



SECTION THRU LOBBY



LONGITUDINAL SECTION

There are currently a total of 100 employees on the project site, consisting of 30 office/retail employees and 70 factory employees.

3.3 PROJECT CHARACTERISTICS

Dreyer's Grand Ice Cream is proposing to replace its existing factory and office/retail facility at 5929 College Avenue with a new facility that would house its corporate headquarters as well as provide new ground floor retail space (see Figures 3-4 through 3-10). All factory operations would be removed from the site. The proposed project would include the removal of all existing buildings on the project site. These would include the two connected office/retail buildings at 5929 College Avenue; the manufacturing facility at 6036 and 6040 Claremont Avenue; two unoccupied housing units on Chabot Road, and two brick office buildings at 6044 and 6046 Claremont Avenue.

The proposed project would be a three story, 59,108 sq. ft. building (including 9,999 sq. ft. of retail space and 49,109 sq. ft. of office space) with frontage along College Avenue. All of the retail space would be located on the ground floor, having entrances from College Avenue and extending approximately 40 feet along Chabot Road. There would also be a portico-covered entryway at the northern end of the College Avenue frontage at the church property line. It is proposed that there would be approximately 7,999 sq. ft. of food service space and 2,000 sq. ft. of general retail space. Behind the retail area on the ground floor there would be 11,972 sq. ft. of office and office-support space. The second and third floors would contain 21,771 sq. ft. and 15,366 sq. ft. of office space, respectively. There would be a patio on the second floor.

The proposed project would accommodate approximately 150 office, nine retail, and five restaurant employees, for a total of 164 employees on the site. The project would have approximately 41,275 sq. ft. of parking area, containing a total of 132 on-site parking spaces. Access to the parking lots would be from Chabot Road and Claremont Avenue.

The roof of new building would rise 35 feet at its highest point with a four foot parapet.

Construction cost is estimated at \$4.9 million dollars for the building (including interior improvements) with an additional \$400,000 for site work (including demolition and landscaping). Construction would take 12 to 16 months.

4. ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

4.1 LAND USE AND RELATIONSHIP TO PLANS AND POLICIES

SETTING

Land Use in the Project Area

The project site is located in the Rockridge District of North Oakland. The area consists of a north-south oriented commercial strip along College Avenue, with residential uses, primarily single-family, to the east and west of College Avenue (see Figure 4.1-1). Adjacent to the site on the north is the United Presbyterian Church and its annex, both with frontage on College Avenue. Between the church and the project site is a small (40' x 60') landscaped courtyard that is part of the Church's grounds and accessible to pedestrians. Continuing to the north on College Avenue is an antique shop, an imported rug shop, an art gallery, a realty office, a video rental shop, and a Shell service station located at the intersection of Claremont and College Avenues. Two ice cream shops, two banks, and a Union 76 service station are also located at this intersection. A Safeway supermarket is located adjacent to and north of the Union 76 service station.

Land uses fronting both sides of College Avenue to the north and south consist mostly of small retail and office uses. Uses directly across College Avenue include a two-story retail development with parking below known as College Station. Other uses on College Avenue include an auto repair shop, a yogurt shop, a day care center, an aerobics studio, and a few restaurants. The Rockridge BART Station is located a few blocks to the south on College Avenue. Lucky's supermarket is located a block north of the BART station. The area east of College Avenue is primarily single-family residential. The areas north and west across Claremont Avenue, as well as south and west across Chabot Road, contain single-family residences and duplexes.

EXISTING LAND USE

FIGURE 4.1-1



To the south of Dreyer's manufacturing facility along Claremont Avenue is Yoshi's Nightclub and Restaurant. To the north along Claremont Avenue, to College Avenue, are two lots containing two-story apartment buildings, a small air conditioning and heating contractor's operation, and a carpentry woodshop.

Both residential lots adjacent to the project site (on Claremont Avenue and Chabot Road) are owned by Dreyer's.

Land Use on the Project Site

The proposed project is located on a 1.8-acre site at 5929 College Avenue. The proposed project would require the removal of all the structures on the site, consisting of 10,800 sq. ft. of office/retail use fronting College Avenue; 48,500 sq. ft. of manufacturing and warehouse space at 6036 and 6040 Claremont Avenue; two unoccupied single-family residences at 5957 and 5963 Chabot Road; two vacant buildings that have been converted from residential to office use at 6044 and 6046 Claremont Avenue; two parking lots (accessed from College Avenue and Chabot Road) containing a total of 35 parking spaces; and three loading docks. Section 3.2 of this report contains a detailed description of the proposed project site.

General Plan Guidelines

The following policies contained in Oakland's General Plan may apply to this project:

1. to conserve existing neighborhoods and other areas, while encouraging new development in locations compatible with such conservation;
2. to advance Oakland's position as a regional center of commerce, industry, recreation, and culture;
3. to strengthen the City's non-residential tax base.
4. in considering those land use questions which mostly affect a particular neighborhood or other₁ area, the City will give substantial weight to the opinions of the local citizens.¹

Other General Plan policies are aimed at conserving existing housing, preserving neighborhoods, providing adequate housing to all socioeconomic groups, and preventing or reducing residents' exposure to excessive or annoying noise.²

Zoning Policies

Most of the proposed project site is located in the C-31 Special Retail Commercial Zone. A portion of the Chabot Road frontage in the R-35 residential zone (see Figure 4.1-2).

The C-31 Zone extends the length of College Avenue from the Oakland-Berkeley border on the north to Broadway on the south. As stated in the City Zoning Regulations, the C-31 Zone "is intended to create, preserve, and enhance areas with a wide range of retail establishments servicing both short- and long-term needs in attractive settings oriented toward pedestrian comparison shopping, and is typically appropriate along important shopping streets having a special or particularly pleasant character."³

The C-31 Zone allows, or allows with a conditional use permit, a variety of civic and commercial uses. It also allows a residential density of one unit per 450 square feet of lot area. Perhaps the key provision of the C-31 Zone is its requirement that non-retail uses not be allowed within the first 20 feet of the ground floor of any building except with a Major Conditional Use Permit. This provision is specifically aimed at encouraging a pedestrian-oriented shopping street frontage. Administrative commercial activities, such as the headquarters office proposed by Dreyer's, would therefore require a Major Conditional Use Permit if located within the first 20 feet of the ground floor of the new building. In this case, the project sponsor is proposing only retail and food sales within the first 20 feet of the ground floor.

The C-31 Zone contains other restrictions to encourage a pedestrian-oriented shopping environment. All driveways, open parking, and loading areas also require a conditional use permit. The total maximum floor area of any commercial or manufacturing establishment is limited to 7,500 square feet, except upon the granting of a conditional use permit.

Design Review is required for the construction or the alteration of any facility. The maximum height limit in the C-31 Zone is 35 feet. Open parking and loading areas must be screened and buffered from adjacent streets and residential lots.

The R-35 Special One-Family Residential Zone is "intended to create, preserve, and enhance areas containing a mixture of single- and two-family dwellings in desirable



settings for urban living, and is typically appropriate to areas of existing lower or lower-medium density residential development."

The R-35 Zone allows primarily one-family residential uses. Two units are allowed with a lot area of 5,000 sq. ft. and upon the granting of a Major Conditional Use Permit. Certain other civic and agricultural activities are either permitted or conditionally permitted. One and one-half parking spaces are required per unit. Open space is also required at 300 sq. ft. per unit. The maximum height allowed in the R-35 Zone is 30 feet.

IMPACTS

Project Site and Vicinity

Under the proposed project, all existing buildings on the project site would be removed. The existing office/retail space fronting College Avenue, a portion of the factory and the two parking lots would be replaced with a three-story office/retail building. The two unoccupied houses located at 5957 and 5963 Chabot Road, as well as the remainder of the factory operation and two converted office buildings on Claremont Avenue would be replaced with off-street parking. No manufacturing use would remain on the site. Negotiations are presently underway to move the manufacturing use to Union City, California.

As outlined in Table 4.1-1, the proposed project would add 40,460 sq. ft. of office space to the site, increase retail space on the site by 5,649 sq. ft., and reduce manufacturing space by 48,500 sq. ft. The number of off-street parking spaces would increase by 97, and the number of employees would increase by 67. Two unoccupied single-family residences would be removed from the site.

No businesses or residents would be displaced as a result of the project. Two residential units on Chabot Road owned by Dreyer's would be removed; although owner occupied prior to their purchase by Dreyer's, these units have been unoccupied for over three years. The two brick buildings at 6044 and 6046 Claremont Avenue that formerly contained three residential units were converted to office use over five years ago. The various operations that occupied the retail space fronting College Avenue have all vacated for a variety of reasons. The most recent retail tenant moved over a year and a half ago. In October

TABLE 4.1-1
LAND USE COMPARISON
EXISTING SITE AND PROPOSED PROJECT

<u>Land Use</u>	<u>Existing (sq. ft.)</u>	<u>Proposed (sq. ft.)</u>	<u>Change (sq. ft.)</u>
Dreyer's Office	8,649 ¹	49,109	+40,460
Retail	4,350	9,999	+5,649
Manufacturing	48,500	0	-48,500
Single-Family Residential ²	<u>5,000</u>	<u>0</u>	<u>-5,000</u>
TOTAL	66,499	59,108	-7,391
Number of Off-Street Parking Spaces	35 ³	132	+100
Number of Employees	100	164	+64

¹Includes 2,199 sq. ft. of unoccupied office space on Claremont Avenue.

²Includes two residences (2,400 sq. ft. and 2,600 sq. ft.) on Chabot Road. Owned by Dreyer's, unoccupied for past three years.

³Does not include five off-site spaces leased by Dreyer's.

1988, Dreyer's was granted a Use Permit allowing them to locate office space in one of the former retail spaces.

Conformance with City Plans, Policy, and Zoning

The proposed use of the project site for office and retail development is in compliance with the goals of Oakland's General Plan. The project would replace the ice cream factory, a preexisting legal nonconforming use that would not be allowed under current zoning, with permitted and conditionally permitted uses.

The project sponsor has filed applications for a Major Conditional Use Permit and for Design Review under the application of the Zoning Sections listed in Table 4.1-2.

All of the proposed parking would require a Major Conditional Use Permit under different provisions of the zoning regulations. A portion (approximately 32 spaces) of the proposed parking lot with access from Chabot Road is in the R-35 zone, where any accessory parking requires a conditional use permit. Any parking located at the ground level in the C-31 Zone also requires a conditional use permit. The parking areas would be screened and buffered from adjacent streets and residential lots by retaining existing trees and shrubs and adding new vegetation. Some screening already exists between the Chabot Road lot and the adjacent residence. Existing vegetation fronting Chabot Road, including a specimen oak, will be retained and shrubbery will be added.

The proposed project would contain 9,999 sq. ft. of retail space. The C-31 Zone requires a conditional use permit for over 7,500 square feet of floor area. It should be noted that the project sponsor intends to have more than one use in the retail space (i.e., it would not be one large department store). Furthermore, the retail frontage along College Avenue would be broken up by a set-back that could be used for restaurant seating. A series of awnings would be used to further break-up the retail frontage, consistent with the scale of existing retail uses on College Avenue.

It is expected that one of the retail uses will be a restaurant. The C-31 Zone requires a conditional use permit for general food sales activities.

TABLE 4.1-2
REQUIRED APPROVALS

<u>Major Conditional Use Permit</u>	<u>Code Section</u>
1. Accessory parking in an R-35 Zone	7011
2. Open facility in a C-31 Zone	4481(a)
3. Parking at ground level in a C-31 Zone	4482
4. Over 7,500 sq. ft. of commercial space in a C-31 Zone	4483
5. General food sales in a C-31 Zone (a legal, nonconforming use)	4479(b)
<u>Design Review</u>	
1. Construction or alteration of any facility in a C-31 Zone	

The highest point of the office/retail building would be 35 feet, which is within the height limit of the C-31 Zone.

The total square footage of the project is 59,108 sq. ft. and the total square footage of the project site is 78,629 sq. ft. The floor area ratio (FAR) for the proposed project is 0.75. The City of Oakland Zoning Regulations do not designate a maximum FAR for the C-31 Zone.

Design review is required for construction or alteration of any facility in a C-31 Zone.

The proposed project complies with many of the existing plans and policies of the City of Oakland. It would allow Dreyer's to locate their corporate headquarters in Oakland and is, thus, in direct compliance with Oakland's goal to advance its position as a regional center of commerce. The project would remove the existing factory use and replace it with uses that are more compatible with the existing neighborhood, and would reduce residents' exposure to existing annoying noise. The proposed office and retail use of the site is in keeping with existing uses in the C-31 Zone. However, the project as proposed, would remove two existing unoccupied housing units, which would not comply with Oakland's policy to conserve housing and preserve existing neighborhoods.

Also, the scale of the proposed project is larger than many of the immediately surrounding land uses. A discussion of the development scale and site design is contained in the Visual Quality section of this report.

In response to the opinions of local citizens, the project sponsor has redesigned the proposed project. Originally, the proposed project included the retention of the existing factory and additional research and development space, as outlined in the Initial Study (Appendix A of this report). Due to public opposition to the proposed factory expansion (as well as opposition to the existing factory), Dreyer's opted to redesign the project and move all factory operations from the site in an attempt to allay the concerns of the local citizens. Neighborhood residents will have continued opportunity to express their opinions and concerns regarding the proposed project through the environmental review process, which includes a public hearing held by the Oakland Planning Commission and a 45-day

review period, at which time any interested citizen or organization, jurisdiction, or agency can submit oral or written testimony.

MITIGATION MEASURES

As outlined above, required zoning for the proposed project has been applied for. In order to conserve existing housing, the project sponsor has offered the two residential structures on Chabot Road to the City of Oakland at no cost for removal from the site to another residential location. In order to fully preserve the existing residential character of Chabot Road, the two houses should not be removed. Retaining just the residence at 5957 Chabot Road would partially mitigate the project's impact on reducing existing residential character. If either of these houses is removed, the impact would be somewhat mitigated by extensively landscaping the parking lot's frontage on Chabot Road which would serve as an effective transition from the commercial frontage on College Avenue to the residential uses farther down Chabot Road. The existing trees and shrubs at the property line between the proposed Chabot Road parking lot and the existing residence should be maintained and augmented. Mitigation measures within the transportation and noise sections that address impacts that could change the character of the neighborhood should be included as conditions of project approval.

¹City of Oakland, Land Use Element of the Oakland Comprehensive Plan, Adopted April 29, 1980, p. 19.

²Ibid, p. 10.

³City of Oakland, Zoning Regulations, Ordinance No. 4248 C.M.S. as Amended, adopted August 31, 1965, revised through November 19, 1985, section 4475.

4.2 GEOLOGY

SETTING

The site slopes gently to the southwest with elevations ranging from approximately +188 feet at the northeast corner along College Avenue to about +182 feet OCD at the southwest corner.¹ Ninety percent of the property is presently covered with impervious surfaces such as existing buildings, concrete slabs and an asphalt parking lot, rendering it mostly impermeable.

Geology/Soils

The site is in the Quaternary age Temescal Formation, which consists of unconsolidated sediments of clayey gravel, sandy silty clay and sand-clay-silt mixtures. The Temescal sediments are alluvial stream deposits which originated from the Berkeley Hills. The probable climate of deposition was rather dry with infrequent torrential rains. This formation is described as moderately permeable with fair to good earthquake stability and fair to excellent foundation conditions.²

Soil borings completed on the site encountered zero to approximately 6.5 feet of artificial fill. These fill soils were underlain by interbedded clay, sand, silt and gravel mixtures.³

Groundwater

During the soil borings performed between April 9 and 11, 1986, groundwater was encountered at depths varying from approximately elevation 171 feet OCD to 177 feet OCD. Because the water table is usually higher by about two to four feet during the winter months, groundwater levels could be expected to vary by several feet due to seasonal effects.⁴

Seismicity

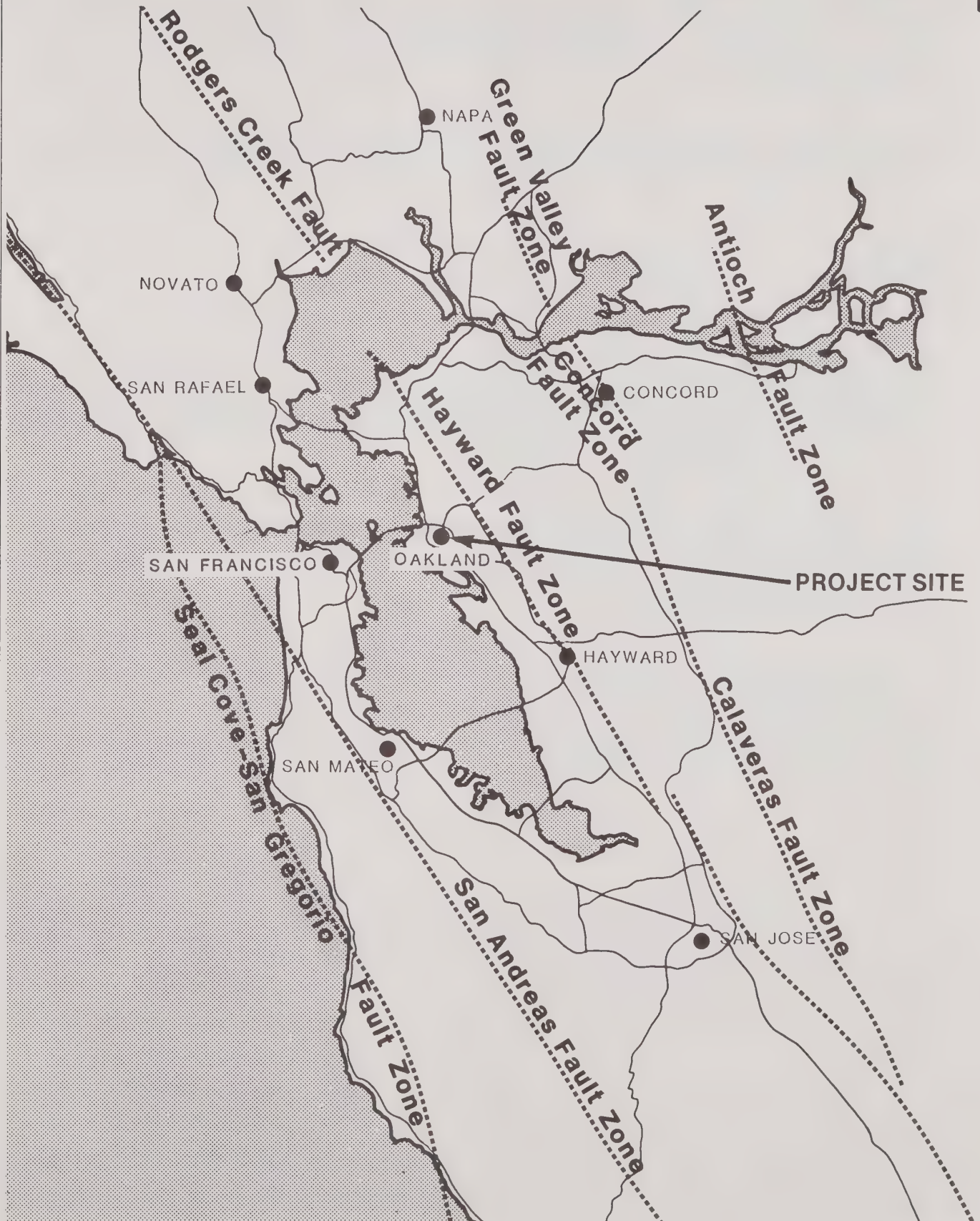
The project site, like the entire Bay Area, is in a seismically active region. There are four recently active faults capable of causing groundshaking on the project site. The Seal Cove fault, San Andreas fault, the Hayward fault and the Calaveras fault are located about 23.5 miles southwest, 17.5 miles southwest, one mile northeast and 14.5 miles east of the site, respectively (Figure 4.2-1). These faults have produced earthquakes of

ACTIVE FAULT ZONES

FIGURE 4.2-1

SOURCE: CALIFORNIA DIVISION OF MINES & GEOLOGY/JENNINGS

MILES 0 5 10 20



Richter magnitudes ranging from 6.7 to as high as 8.3 (M6.7 to M8.3). It is estimated that the faults are capable of producing earthquakes of M8.3 (San Andreas) and M7.5 (Hayward and Calaveras).^{5,6}

No known active faults traverse the project site. The site is not within the Alquist-Priolo Special Study Zone.⁷

IMPACTS

Geology/Soils

The proposed project would not affect the area's geology, except for disturbing the underlying sediments for foundation construction. However, the existing geological, hydrological and seismic conditions in the area would impose constraints on the project that would require special design considerations.

Without mitigation, weak compressible earth materials underlying the site could consolidate differentially under proposed building loads. The resultant differential settlement would cause structural damage.⁸

The geotechnical report indicates that clay soils underlying the site are moderately expansive.⁹ This potential for shrink swell would cause differential vertical movement of foundation soils. Without mitigation, this shrink swell behaviour could generate structural damage.

Groundwater

No potential impacts relating to basement construction, temporary and permanent control of groundwater and the protection of adjacent structures have been identified in connection with the proposed project.

Seismicity

In the event of an earthquake along active faults in the Bay Area, the project site would be subjected to very strong to violent groundshaking.^{10,11} In a maximum credible earthquake, the site would experience ground acceleration of .35g to 0.5g. This estimate is based on an analysis of the location of faults, the behavior of the faults, the distribution

of past earthquake data, local fault depth characteristics and the maximum credible event for each fault. Estimating the maximum credible ground acceleration from earthquakes is important for the design of buildings, to ensure that they are "elastic" enough to withstand shaking. The groundshaking effects of 0.5g acceleration are predicted to be equivalent to Intensity IX or higher on the Modified Mercalli Scale.¹² This could include general damage to foundations, reservoirs and underground pipes.

The project site is located within Hazard Zone II as described in the Environmental Hazards Element of the Oakland Comprehensive Plan. Within Hazard Zone II, liquefaction is a potential effect of groundshaking. This hazard typically occurs in saturated, loose to moderately dense sand. As the shaking soil compacts, an increase in water pressure results in the material's acting as a liquid, or "quick" sand. The potential for liquefaction of foundation soils in the region surrounding the project site is generally low.^{13,14}

Loose sands encountered during the subsurface exploration were usually found to be confined by overlying clay layers. This confinement has been found to mitigate potential liquefaction of loose sands. In the southeast portion of the site, however, loose surficial sands were encountered without confining clay layers. The loose sands were not found to be saturated at the time of the subsurface exploration. However, groundwater levels that were measured six feet below these layers during drilling and could be higher under equilibrium conditions.¹⁵ In addition, groundwater levels fluctuate in response to seasonal variations. With these two unknown factors, site groundwater potentially could saturate these loose sands before a major seismic event, setting the stage for liquefaction. With the areal extent of these loose sands unknown, there is a possibility that potentially liquifiable sands may underly most of the southern portion of the proposed retail building and adjacent parking lot areas.

Tsunamis, or seismic sea waves, can be generated by any large-scale, short-duration earthquake, primarily on the ocean floor. The tsunami effects along the California coast from offshore earthquakes are usually manifested by rapidly changing tides. The project site is not in an area subjected to inundation by tsunamis.¹⁶

MITIGATION MEASURES

A geotechnical investigation has been completed for the project site.¹⁷ The investigation covered site conditions related to geology, groundwater and seismicity. It contained recommendations for site grading, excavations, shoring, dewatering, waterproofing, retaining walls, foundation and seismic design related to the proposed development with associated subsurface parking levels. Recommendations from the geotechnical report are included as the following mitigation measures to reduce the potential impacts of the project.

Geology/Soils

- o The building should be supported on friction caissons to compensate for weak and potentially compressible subsurface soils. These piers would penetrate weak and loose sediments underlying the site. Piers would be 15 to 25 feet long depending on the diameter of the piers relative to the elevation of sound subsurface material.
- o All at-grade interior slabs would be supported on a layer of compacted non-expansive fill as per recommendations of the geotechnical report.

Seismicity

The above Geology/Soils mitigation measures would also mitigate seismic impacts. Additional mitigation measures are recommended by the EIR consultant:

Geologic. The areal and vertical extent of loose sands and weak foundation soils would be delineated prior to the drilling of piers in order to insure sufficient depth of pier emplacement. The method of this delineation would be the prerogative of the geotechnical consultant.

Soils. Construction should take place during the dry season (May to October) to reduce the amount of runoff and sediment leaving the site. The water table would be a few feet lower, thus reducing adverse effects on concrete pier emplacement. If groundwater is present in the holes, the "tremie" method of concrete pier emplacement would be utilized.

Seismic. Buildings would be constructed according to seismic standards of the Uniform Building Code. The above Geologic mitigation measures would also mitigate seismic impacts.

¹ Oakland City Datum is 2.998 feet above mean sea level.

² Radbruch, D., Areal and Engineering Geology of the Oakland West Quadrangle, California, US 65 Map I-239, 1957.

- ³ Kaldveer and Associates, Foundation Investigation for Dreyer's Grand Ice Cream, Corporate Headquarters, Oakland, California, Project No. K921-1, 08383, May 7, 1986.
- ⁴ Associated Geotechnical Engineers, Inc., Geotechnical Engineering Investigation for Hong Kong/U.S.A. Project, Oakland, California. Project No. 100-2, SJ-2610. San Jose, September 13, 1978, part I, page 5.
- ⁵ Greensfelder, R. W., Maximum Credible Rock Acceleration From Earthquakes in California. California Division of Mines and Geology Map Sheet 23, 1974.
- ⁶ Borchardt, R. D., et al, Maximum Earthquake Intensity Predicted for Large Earthquakes, Southern San Francisco Bay Region, U.S. Geological Survey Map MF-709, 1975, scale, 1:125,000, Sheet 2.
- ⁷ This zone has been defined by the legislature as a quarter-mile-wide strip straddling the trace of any active fault. Construction within this zone is subject to special geotechnical studies, and buildings designed for human occupancy are prohibited within 50 feet of the known trace of an active fault.
- ⁸ Kaldveer and Associates, op. cit.
- ⁹ Ibid.
- ¹⁰ Greensfelder, R. W., Maximum Credible Rock Acceleration from Earthquakes in California. California Division of Mines and Geology Map Sheet 23, scale, 1:2,500,000, 1974.
- ¹¹ Seed, H. B. and Idriss, I. M., Ground Motions and Soil Liquefaction During Earthquakes, Earthquake Engineering Research Institute, 1982.
- ¹² Borchardt, 1975, op. cit.
- ¹³ City of Oakland, "Environmental Hazards," An Element of the Oakland Comprehensive Plan, Oakland, CA 9174, page 19 and Figure 5.
- ¹⁴ Perkins, Earthquake Mapping Project Working Paper #17, Association of Bay Area Governments, 1982.
- ¹⁵ Kaldveer and Associates, op. cit.
- ¹⁶ Pierzinski, Diane, "Tsunamis," California Geology, March, 1981, page 59.
- ¹⁷ Kaldveer and Associates, op. cit.

4.3 HYDROLOGY/WATER QUALITY

SETTING

Hydrology

The project site is located just north of the Harwood Branch of Temescal Creek, a perennial stream that has been almost completely enclosed in culverts through the Rockridge area of Oakland (see Figure 4.3-1). Approximately 1,500 feet downstream of the project site, the Harwood Branch joins the main stream of Temescal Creek in a 10 x 12 foot reinforced concrete box culvert underneath the Grove-Shafter Freeway. Temescal Creek then continues in a westerly direction through Oakland and Emeryville to eventually discharge into San Francisco Bay, between the Emeryville peninsula and the Bay Bridge. Both Temescal Creek, designated Flood Control Line A, and the Harwood Branch, Line A-1, are maintained by the Alameda County Flood Control and Water Conservation District.^{1,2}

Surface runoff from the area surrounding the project site is collected within a subsurface network of drainage pipes (maintained by the City of Oakland) that discharge into either the Harwood Branch or directly into Temescal Creek at the freeway. Stormwater inlets are situated at the upslope corners of the area's street intersections to pick up runoff from the street gutters. The gutters serve as the initial means of stormwater conveyance throughout the neighborhood.

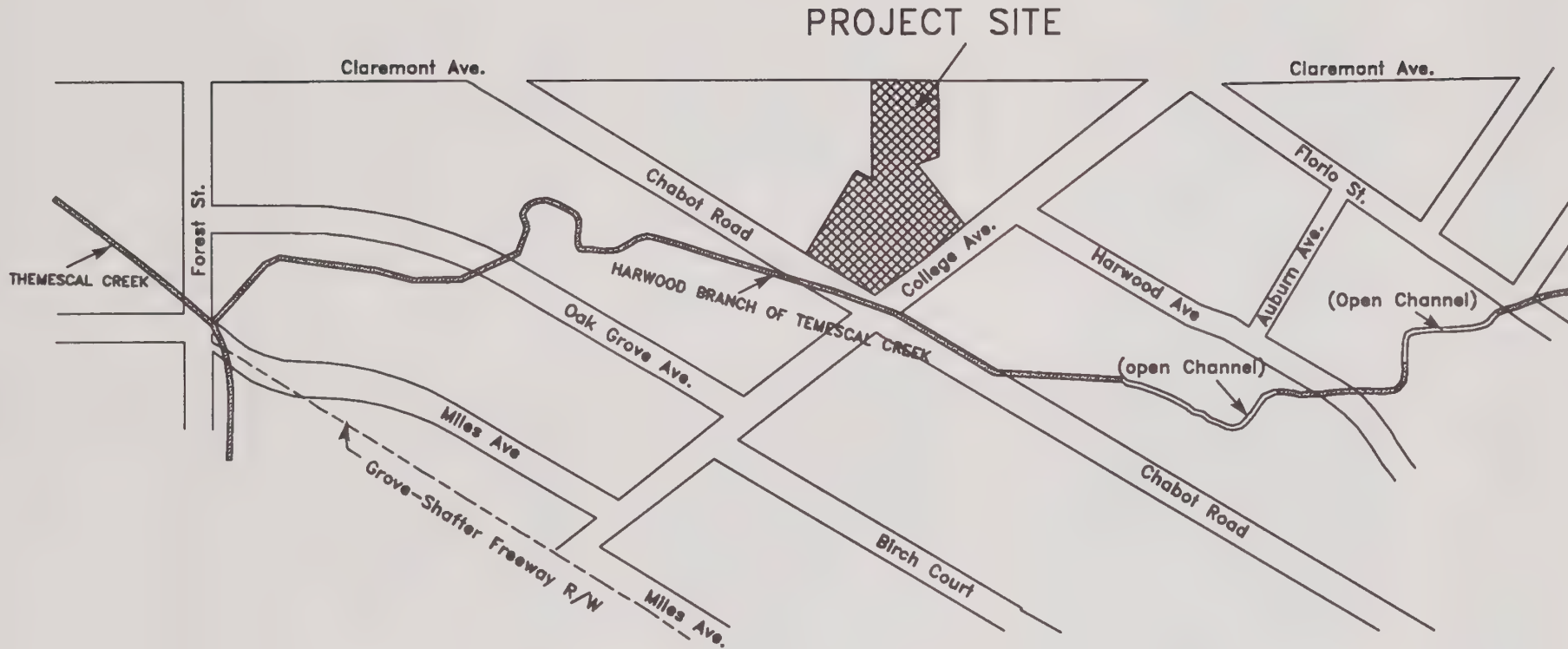
An existing 24-inch diameter storm sewer running along the east side of College Avenue drains the approximately 28-acre drainage basin located immediately north (and upslope) of the project site. This line discharges into the Harwood Branch at the corner of College Avenue and Chabot Road. The creek runs underneath Chabot Road for nearly 200 feet, beginning at this intersection, and then cuts in a southwesterly direction through the block between Chabot Road, Oak Grove Avenue, and Miles Avenue to its junction with Temescal Creek at the corner of Miles Avenue and Forest Street. The creek and the storm drain on College Avenue are the closest elements of the underground storm drain network to the project site; however, the area's southwesterly topographic fall takes the property's stormwater runoff into a separate system on Claremont Avenue (The Alameda County Flood Control and Water Conservation District is presently designing a Miles Avenue/

HARWOOD BRANCH OF TEMESCAL CREEK

FIGURE 4.3-1



SOURCE: EIP ASSOCIATES



College Avenue bypass line that would allow abandonment of the existing portion of the Harwood Branch between Chabot Road and Temescal Creek. At this time, no completion date has been set for this project.)

The Claremont Avenue storm drain begins at the corner of Hillegass Avenue, 60th Street, and Claremont Avenue, almost 250 feet southwest of Dreyer's frontage on Claremont Avenue. This line, which begins as a 15-inch and gradually increases to a 36-inch diameter concrete pipe at Martin Street, drains a nearly 30-acre strip of land along Claremont Avenue between College Avenue and Martin Street. Virtually all stormwater runoff from the existing Dreyer's site and adjoining properties accounted for in the development plan appears to currently enter this system through the street inlets at the corner of Claremont Avenue and Chabot Road.

The 36-inch diameter Claremont storm drain joins a 42-inch diameter line at Martin Street, about 200 feet before it discharges into the 10 x 12 foot Temescal concrete box culvert beneath the Grove Shafter Freeway. The 42-inch line drains almost 70 acres located between Claremont Avenue, Channing Street, and Alcatraz Boulevard (in Berkeley). This large area is mainly situated downslope of Claremont Avenue, which gives its drainage system a lower hydraulic gradient than the Claremont Avenue storm drain. As a result, during large storms that strain the drainage facilities, the 42-inch line on Martin Street may be surcharged by the Claremont Avenue system, causing minor ponding at low intersections.

Stormwater runoff from the present Dreyer's site primarily enters the street collection system as overland flow into the gutters on College Avenue and Chabot Road. The properties are almost completely covered by impervious surfaces (buildings, concrete, or asphalt). Roof leaders are directed onto the parking lots/truck loading areas, from which the water then runs into the street.

Sump pumps are used to discharge runoff directly from a few depressed truck loading areas that currently have no gravity outlets. Three-inch diameter pipes carry the water from these low areas to the face of the curb to enter the street gutter system. In addition, the College Avenue loading area has a drain that conveys spillage from the milk

delivery trucks into the sanitary sewer. Dreyer's personnel note that some of this spillage occasionally washes off the delivery platform into the stormwater sump, and is then automatically pumped out to the curb.

The City of Oakland presently experiences no major drainage problems in this portion of the Rockridge neighborhood. A regular maintenance program is employed to clear the stormwater inlets and drain pipes of the trash and debris that cause most occurrences of minor flooding. The enclosed sections of the Harwood Branch of Temescal Creek and the Grove Shafter box culvert both have relatively high flow capacities for the size of their channels. This is due to the lines' fairly steep gradients that fall with the surrounding topography. It is this same natural gradient that gives the street gutters a substantial stormwater carrying capacity, permitting the long reaches between the area's inlets.

Groundwater

Ten exploratory borings were drilled on the proposed project site as part of the Subsurface Foundation Investigation performed by Peter Kaldveer and Associates.³ These borings, which ranged from 15 to 40 feet in depth, identified the subsurface strata found below the site, and located the groundwater depth as of April, 1986. Groundwater was generally found between 12 to 20 feet deep, although in one hole left open for 24 hours after boring, the level finally stabilized 9 feet below the surface, representing an 11 foot rise. It was also noted in Peter Kaldveer and Associates' report that the water level rose significantly (up to eight feet) in several of the holes during the short time between completion of drilling and backfilling of the hole. Because of this rapid rise, the authors recommended using a depth of seven feet to the water table as a minimum for foundation designs.

The boring results indicate that the groundwater is largely contained within a layer of silty or clayey sands sandwiched between imported clay fill on the surface, and stiff natural clays below. Pressure exerted on the water table by the higher elevation natural ground to the east most likely caused the water's rise into the clay surface layer in several of the holes when the water-bearing strata were exposed by the drilling. Consistent evidence of a groundwater gradient could not be observed across the relatively level project site as the depth to groundwater exhibited no clear pattern.

IMPACTS

Hydrology

As mentioned above, the existing Dreyer's site is almost entirely covered by impervious surfaces. The 0.33 acre parcel on Claremont Avenue, which is slated to be used as a portion of the proposed parking lot, is similarly paved or built over, leaving virtually no area through which rainwater can percolate into the ground. The only portion of the proposed project site that would experience a significant reduction of existing pervious surface is the 0.21 acre combination of two residential parcels on Chabot Road. This future parking area is now approximately 65% covered by buildings or pavement. Upon completion of the proposed project, it is conservatively estimated that only 10% of these two parcels would remain as landscaping or natural ground. This would bring the two parcels' composite runoff coefficient up to 90%, equaling the value used in this analysis for the rest of the project site.

This relatively small decrease of pervious surface within the proposed project area would only increase the theoretical stormwater runoff from the entire site by approximately 3% (0.43 acres represents 12% of the project area - a 25% increase in runoff from this 12% portion equals a 3% total project increase). Potential adverse impacts are normally related to the increase in the rate at which runoff is discharged from the site. If this rate can be held to a level that does not exceed the predevelopment (or existing condition, in this case) rate of discharge, downstream drainage facilities would theoretically not be affected by the proposed project. This discharge control is usually accomplished by detaining some of the stormwater on site until the storm's peak has passed. Discharges would then continue for a longer period (since the total runoff volume has gone up), but would not adversely affect the storm system. Like highways, drainage systems are designed to handle peak flows, so continued high levels of discharge from newly developed sites after the rest of the neighborhood's peak has passed can be easily absorbed by the emptying pipes and inlets.

The temporary storage volume that might be required to maintain the present project site's discharge levels can be estimated. Using a 100 year recurrence interval design rainfall and a 30 minute time of concentration (a conservative estimate for detention

facilities), the Alameda County Flood Control and Water Conservation District Design Standards yield the following results:

Total Annual Precipitation - 25 inches

Rainfall Intensity Factor - 0.085

(Alameda Co. Design Standards)

Existing Site Runoff Coefficient $[(1.6 \text{ ac.} \times 0.90) + (0.21 \text{ ac.} \times 0.65)]/1.81 \text{ ac.} = \underline{0.87}$.

Precipitation in Inches per Hour = (25 inches) $\times$ 0.085

= 2.12 inches per hour

Total Rainfall = (2.12 inches/hour) $\times$ 0.5 hours (30 minutes)

= 1.06 inches = 0.09 feet

Existing Runoff Volume = (0.09 feet) $\times$ (1.81 acres) $\times$ (0.87)
 $\times$ (43,560 sq. ft./1 acre)

= 7096 cubic feet

Approximate Retention Volume = 3% of Existing Runoff

= 3% $\times$ (7096 cubic feet)

= 213 cubic feet

As presently proposed, there appears to be little room for temporary surface storage of even this small quantity of stormwater runoff. Underground storage is frequently used for this purpose, though, with drainage pipes installed not to convey water, but to hold it until the storm has passed. Less than 20 feet of 48-inch diameter pipe could accept this volume, which demonstrates that on site detention of peak stormwater discharges is feasible within the limits of the proposed project.

The quality of the stormwater runoff that leaves the project site could also be expected to decline somewhat as a result of the proposed project. Traces of oil, heavy metals, rubber particles, and debris would accumulate on the large surface parking lots. Each rainfall would wash these materials into the City's storm drain system. However, this is already a fully urbanized area, which only uses its surface water resources as stormwater conduits for final discharge into San Francisco Bay. As a result, this marginal increase of

contaminants would probably not be significant within the Rockridge neighborhood, but it would contribute to the gradual degradation of San Francisco Bay.

Control of the non-point source pollution that results from stormwater runoff is a regional issue that presently can be best handled at the local level. The most effective approach within already urbanized areas is a regular program of pavement cleaning and debris removal, not simply pavement washing. When properly disposed of, the materials collected in this way are effectively prevented from reaching the area's surface waters.

As an additional measure, storm drain facilities (such as the storage pipes discussed above) can be designed so that stormwater runoff flows beneath submerged weirs to trap oils, grease and floating debris. The pipes can also temporarily detain the first flush of runoff (which picks up most of the contaminants deposited since the last rainfall or pavement cleaning) to allow some of the heavier contaminants to settle out.

The occasional milk spills experienced at the College Avenue loading dock would also be eliminated by the proposed project. All manufacturing would be removed from the site, so there would no longer be any accidental washing of milk or milk products into the storm drain sump to be pumped out to the street gutter.

Construction of the proposed project could slightly increase the sediment load that reaches the local storm drains and concrete culverts. Because no below-ground structures are presently proposed, it is unlikely that groundwater pumping would be required during foundation construction. However, stormwater runoff from the exposed soils could wash significant volumes of sediment into the street gutters and storm drains. It is unlikely this material would degrade the environmental quality of the area's surface waters, but it could increase the maintenance burden within these facilities.

Groundwater

Based on the Peter Kaldveer and Associates' subsurface investigations, it is not expected that the proposed construction would affect existing ground water conditions in the project vicinity. This is because the proposed 30-inch deep grade beam foundation will

not reach the underlying water table, which is at a depth of between 9 and 20 feet below ground. The drilled concrete piers that are designed to support the grade beams would be widely spaced, and so would not impede the flow of groundwater. As a result, the groundwater flow, which is believed to follow the surface topography, would be able to maintain its natural channel within the confining clay layers.

It appears unlikely the proposed project would have any effect on the episodes of localized subsidence that are occasionally reported in the immediate vicinity along Chabot Road. The diversion of groundwater flows that can be caused by below grade construction can sometimes encourage increased migration of permeable subsurface layers. All the soils found beneath the project site, however, have very low permeability, and so are very resistant to migration. In the absence of discrete voids below ground, these materials normally remain very stationary, even when located within a flowing water table.

The suspected cause of the local subsidence is actually twofold. Holes that appear regularly in the same area of a street are often the result of a leaking utility line. Pervious materials will follow groundwater either into a leaking storm or sanitary sewer, or along a leaking water main (as the excess water seeks an outlet along the path of least resistance, usually its own trench).

The apparent subsidence behind and beneath several homes located on the south side of Chabot Road is probably related to the enclosed Harwood Branch of Temescal Creek. Development within the natural floodplain of creeks such as this often entails the placement of large quantities of imported fill right to the edge of the waterway. The underlying deposits of organic silts and clays may now be slowly consolidating beneath the fill, causing the ground to sink toward the creek, although further geotechnical studies would be needed to confirm that this is actually occurring along Chabot Road.

MITIGATION MEASURES

This analysis identified no major hydrology or water quality impacts associated with the proposed project. There may be a decrease in the water quality in San Francisco Bay due to the cumulative effects of projects proposed, under consideration or approved in the

project area. The following recommended mitigation measures are intended to address potential impacts associated with full development of the proposed project.

1. The project engineer should prepare an erosion control plan that effectively prevents exposed soils from washing off-site into local gutters and storm drains during construction. In addition, if groundwater pumping is required, provisions should be made for the temporary, on-site detention of this water to allow sediments to settle out before off-site discharge. A schedule for the periodic cleaning of all sediment detention basins should be included in the erosion control plan.
2. The project's soil engineer should demonstrate that the proposed construction would not additionally surcharge surrounding soils and increase the existing rates of consolidation and subsidence in the area.

¹Alameda County Flood Control and Water Conservation District, Hydrology and Hydraulics Criteria Summary, June, 1984.

²This section is also based on telephone interviews with the following individuals (all discussions were held between July 10 and July 15, 1987):

Peter Kaldveer and Associates, Inc. - Ronald Bajuniemi

The City of Oakland, Planning Dept. - Willie Yee

The City of Oakland, Public Works Dept. - Clarence Gillmore

Alameda County Flood Control and Water Conservation District - Andrew Otsuka

Dreyer's Grand Ice Cream, Inc. - John Thommason & Rick Graffis

³Peter Kaldveer and Associates, Inc., Foundation Investigation, Dreyer's Grand Ice Cream Corporate Headquarters, Oakland, California, May 1986.

4.4 TRAFFIC, CIRCULATION AND PARKING

This chapter describes the existing traffic conditions, documents the transportation impacts of the proposed project, and presents recommended measures to mitigate these impacts. It reflects judgments of traffic and transportation conditions reinforced by review of City files, by discussions with City Traffic Engineering staff, and collection and review of traffic and parking data.

SETTING

The project is located in the middle of the Rockridge Area in Oakland (see Figure 4.4-1). The Rockridge Area is one of the most thriving retail and residential communities in the East Bay. Many people visit the area regularly to patronize the unique shops and restaurants. The well-integrated community of homes and businesses draws many people to the area. Non-residents park their cars in the area and use BART, bus lines, and carpools to commute to work destinations in the East Bay and San Francisco. Commuters drive through the area to avoid the congestion on State Route 24 during the peak commute hours.

Traffic and parking conditions in the project area vary widely and change over the course of the day. Traffic and parking conditions on weekdays differ from those on weekends.

On a typical weekday between the hours of 7 and 9 a.m., traffic is concentrated on all major access routes to State Route 24 and BART. During these early morning hours, the primary users of the streets are commuters traveling through or parking in the area to take BART, bus, or carpool for work destinations in the East Bay and San Francisco. By approximately 9 a.m., the BART parking lot is full and BART patrons park on the neighborhood streets.

"Casual carpool" activities occur on the west curb of Claremont Avenue north of its intersection with College Avenue and on the west curb of Claremont Avenue north of the intersection of Hudson Street. "Casual carpools" consist of commuters and local residents who would normally take transit to San Francisco, but instead ride with drivers who want to utilize the carpool lane at the Bay Bridge, avoid the toll, and bypass the toll booth queue.

SITE LOCATION & OVERVIEW OF TRANSPORTATION CONDITIONS

FIGURE 4.4-1

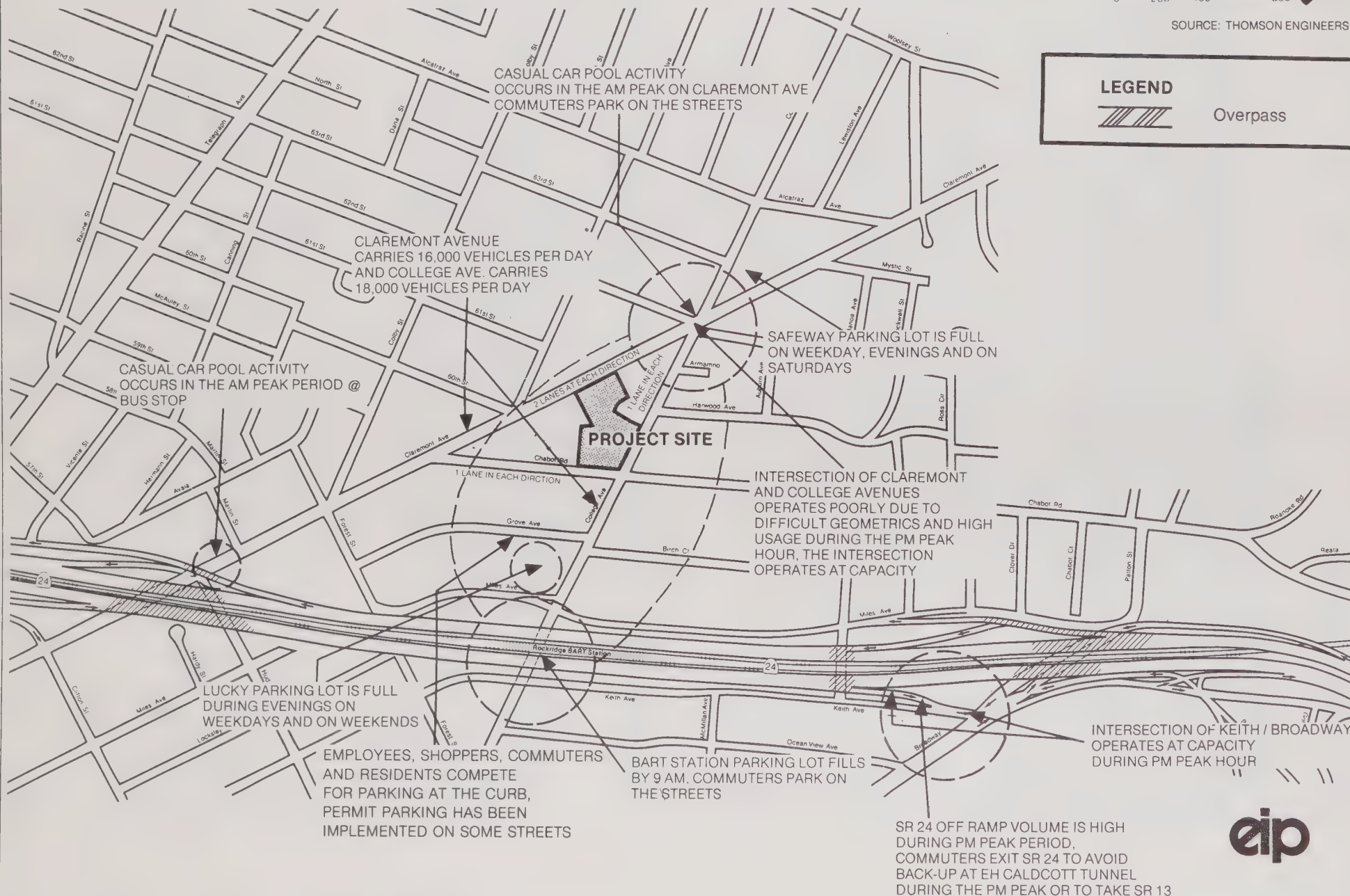


SOURCE: THOMSON ENGINEERS

LEGEND



Overpass



A preferential residential permit parking program, with parking restricted to two hours for vehicles without a residential sticker, has recently been instituted in the area between the project location and Rockridge BART station and in the area east of the intersection of Claremont and College Avenues. City staff has received requests to expand the residential permit parking program to the other side of State Route 24.

The parking program started after the parking survey was completed for the proposed project. The residential parking program includes Chabot Road between Claremont and College Avenues and Oak Grove Avenue between College Avenue and Forest Street.

Traffic activity slows down as the morning progresses following the a.m. peak. See Figure B-1, Appendix B, for a graphic illustration of the traffic volume variation over a typical day on both College and Claremont Avenues.

Claremont Avenue has specific traffic peaking characteristics, whereas traffic on College Avenue peaks less dramatically. This reflects the fact that Claremont Avenue operates mainly as a commuter route. While College Avenue does experience a.m. and p.m. peak hour activity, traffic builds over the course of the day as retail and shopping activities increase, showing that College Avenue serves as the main artery for the retail activity of the Rockridge Area.

As the day progresses, the restaurant activity appears to increase as shopping continues and a midday peak occurs around 1:00 p.m. The late afternoon period is normally the busiest traffic period during a typical weekday. Commuters pick-up their cars or travel through the area to avoid the eastbound backup at the Caldecott Tunnel. This adds to traffic by shoppers, departing Rockridge employees, and returning Rockridge residents.

The area has diverse traffic uses. The basic existing traffic and parking characteristics, and concerns of each user group are summarized below:

- o Residents are most affected by parking intrusion and need easy vehicle access.
- o The residents have collected the necessary support for the City's Residential Permit Parking Program to be implemented on Chabot Road and Oak Grove Avenue.
- o Residents are affected by trucks traveling through their streets - noise is a major concern.

- o Merchants need parking for customers and employees.
- o Commuters want to minimize delay and need efficient thoroughfares such as Claremont Avenue.
- o Commuters want to "casual carpool" to minimize delay at the Bay Bridge.
- o BART commuters want parking.

The project is well located between Claremont Avenue and College Avenue in Oakland's Rockridge district. This location gives good access to downtown Oakland and Berkeley as well as surrounding residential neighborhoods. The area is also well served by the regional highway transportation system, BART and AC Transit buses. The Rockridge BART station is 1,000 feet south of the site and AC Transit has several local and express bus routes serving the area.

Principal Arterials

State Route 24. The project site is located about 1,000 feet north of State Route 24, with direct freeway access provided from Claremont Avenue and College Avenue. State Route 24 is an east-west route of regional significance that connects Central Contra Costa County, via the Caldecott Tunnel, to the East Bay and greater San Francisco Bay Area. Near the Rockridge BART Station, State Route 24 is an eight lane freeway (four lanes in each direction). To the west, State Route 24 terminates at Interstate 580 where the freeway branches into either I-580 or I-980.

In the a.m. peak period, congestion occurs westbound (for San Francisco) at the connection to I-580. In the p.m. peak period, eastbound traffic backs up at the Caldecott Tunnel, many times beyond the Claremont Avenue Exit. Some evening commuters are currently bypassing the eastbound Caldecott Tunnel queue by exiting the freeway at Broadway and traveling the frontage road (Broadway), entering the freeway again at the last entrance before the tunnel.

Claremont Avenue. Claremont Avenue is a major arterial which extends from Telegraph Avenue, north of downtown Oakland, through the Rockridge area, and into the Oakland hills. It terminates at Grizzly Peak Boulevard on the ridge north of the Caldecott Tunnel.

In the vicinity of the site, Claremont Avenue is a four lane street with parking on both sides. Some congestion occurs during the a.m. peak hour southbound on Claremont Avenue near the State Route 24 westbound on-ramp. This occurs due to the high southbound right turn volumes and "casual car pool" activities.

College Avenue. College Avenue is the major arterial for the Rockridge area. It is heavily used by shoppers, employees of the area, and local residents. In the vicinity of Dreyer's, College Avenue is a two lane street with parking on both sides.

Chabot Road. Chabot Road is a local residential street which begins at Claremont Avenue, crosses College Avenue and terminates in the neighborhood east of College Avenue. Access to Tunnel Road from Chabot Road is possible via Roble Road. Chabot Road is one lane in each direction with parking on both sides. Between Claremont and College Avenues, the Residential Parking Permit Program is in place.

Intersection Capacity

As shown in Table 4.4-1, six signalized intersections and two unsignalized intersections were analyzed. These intersections were designated by the City of Oakland for analysis in the Notice of Preparation of the EIR. The Interim Highway Capacity Manual (Circular 212) and the 1985 Highway Capacity Manual were used to calculate the capacities of the intersections.

Levels of Service are defined in Table B-1 of Appendix B. Levels of service A-D are generally considered acceptable during peak hours of traffic, although LOS D approaches an unacceptable level of congestion. Levels of service E-F represent unacceptable conditions and warrant mitigation.

During the a.m. peak period, traffic conditions are within acceptable levels of service at all of the intersections. During the early hours traffic activity is light near the Dreyer's site. The intersections of Chabot Road/Claremont Avenue and Chabot Road/College Avenue operate at Levels of Service (LOS) A between 7:45 - 8:45 a.m.

In the p.m. peak hour all of the major intersections operate within acceptable levels of service, with the exception of the Claremont Avenue/College Avenue intersection (LOS

TABLE 4.4-1
EXISTING CONDITIONS AT INTERSECTIONS
AM AND PM PEAK HOUR
Volume to Capacity Ratios (V/C) and
Levels of Service (LOS)

Intersection	Existing AM Peak Hour		Existing PM Peak Hour	
	V/C	LOS	V/C	LOS
1. Clifton and Claremont	0.28	A	0.44	A
2. Hudson and Claremont	0.83	D	0.37	A
3. Forest, Colby and Claremont	0.80	D	0.78	C
4. College and Claremont	0.84	D	1.00	F
5. Miles and College	0.42	A	0.21	A
6. Keith, Shafter and College	0.51	A	0.65	B
7. Chabot and Claremont (unsignalized) ¹	0.22	A	0.31	A
8. Chabot and College (unsignalized) ¹	0.47	A	0.58	A

¹V/C calculations were performed as if the intersections were signalized. Capacity analyses for unsignalized intersections were also performed. These analyses indicated similar levels of service.

E). The Claremont Avenue and College Avenue intersection operates at capacity during the p.m. peak periods. Aside from the complexity of operations at this intersection caused by different uses such as the gas station, Safeway, and driveway access, the intersection operates poorly due to the difficult geometrics (i.e., the oblique angles of the street crossings). Another factor which affects the capacity at this intersection is the time lost for the 62nd Street signal phase. All of these activities and signal operational constraints result in poor operation of the intersection.

Parking

Existing Parking Conditions. The City designated the study area for the parking analysis to include the area within approximately 1,500 feet of the project site as shown in Figure 4.4-2. The study area is bounded by Keith Avenue on the south, Forest Street and Colby Street on the west, Alcatraz Avenue on the north, and Rockwell Street and Ivanhoe Road to the east. This study area provides a good overall picture of the parking situation for the Rockridge Area north of Keith Avenue. The area includes the major off-street parking lots, such as those of BART, Lucky, Safeway, and the Bank of America. This study area is hereafter referred to as the Rockridge Parking Study Area.

A smaller area within the Rockridge Study Area was designated within 750 feet of the Dreyer's site. Parking surveys were also conducted within this smaller study area (known as the Dreyer's Study Area). The larger area provides information on parking conditions as they relate to the Rockridge area, whereas the smaller area provides information on parking as it relates to the Dreyer's project. (It should be noted that the parking studies were conducted in May and June of 1987 before the preferential parking program started. The studies are documented in Appendix C).

Dreyer's Parking Study Area. This area includes all the on-street spaces and the off-street parking lots within 750 feet of the Dreyer's site. There are 408 on-street spaces and 169 off-street spaces in this area. Of these 169 off-street spaces, 100 are provided in the Lucky lot. Dreyer's has 40 off-street spaces; the remaining 29 off-street parking spaces are in scattered small lots. The occupancy of the off-street spaces in this area peaks at midday with occupancies of 88%. The on-street parking spaces operate at

PARKING STUDY SUMMARY

FIGURE 4.4-2



WEEKDAY
OCCUPANCY
12:30 - 1:30 PM

SPACES

AREA WITHIN APPROX. 750' OF SITE	ON-STREET	408	82%	DREYER'S AREA
	OFF-STREET	169	88%	
AREA WITHIN APPROX. 1500' OF SITE	ON-STREET	1769	62%	ROCKRIDGE AREA
	OFF-STREET	1084	88%	

LEGEND



Overpass

eip

capacity during the midday on a typical weekday. That is, an average occupancy of 82% occurred on two different weekdays during the midday peak. On Chabot Road, for example, the on-street spaces are near capacity between 12:30 and 1:30 p.m.¹ (See Table C-1, Appendix C).

A license plate survey every 45 minutes for each on-street space between 7:15 a.m. and 4:30 p.m. indicated that approximately half of the vehicles in this area park for two hours or less. Approximately 8% parked between two and four hours and 38% parked longer than four hours.

Rockridge Parking Study Area. This area includes all the on-street parking spaces and off-street parking lots within 1,500 feet of the Dreyer's project site. As shown in Table C-2, Appendix C, this area includes 1,769 on-street parking spaces and 1,084 off-street parking spaces. Of the on-street parking spaces, 130 are metered spaces which are located on College Avenue and on the side streets within approximately 100-150 feet of College Avenue (see Figure 4.4-3).

The BART parking lot is the largest off-street parking lot in the area; this lot includes 710 parking spaces. Lucky, Safeway and the Bank of America parking lots provide 100, 110, and 35 off-street parking spaces, respectively.

On weekdays, between midnight and 6 a.m., the on-street parking spaces and the off-street parking spaces experience occupancies of 52% and 6%, respectively. The occupancy of the on-street parking spaces increases as the day progresses. "Casual" carpoolers, employees of the area and commuters are parking on the street near the Bank of America. The on-street parking demand peaks at midday and again around dinner time as the demand for restaurants and residents arriving home occurs.

By 9 a.m. - 10 a.m. on a weekday, the BART and Lucky parking lots are 100% occupied. The occupancy at all of the off-street parking lots is 88% around lunchtime on a weekday. As the day progresses, the use of the off-street lots drops to 57% between 6 p.m. and 8 p.m.

EXISTING PARKING SUPPLY

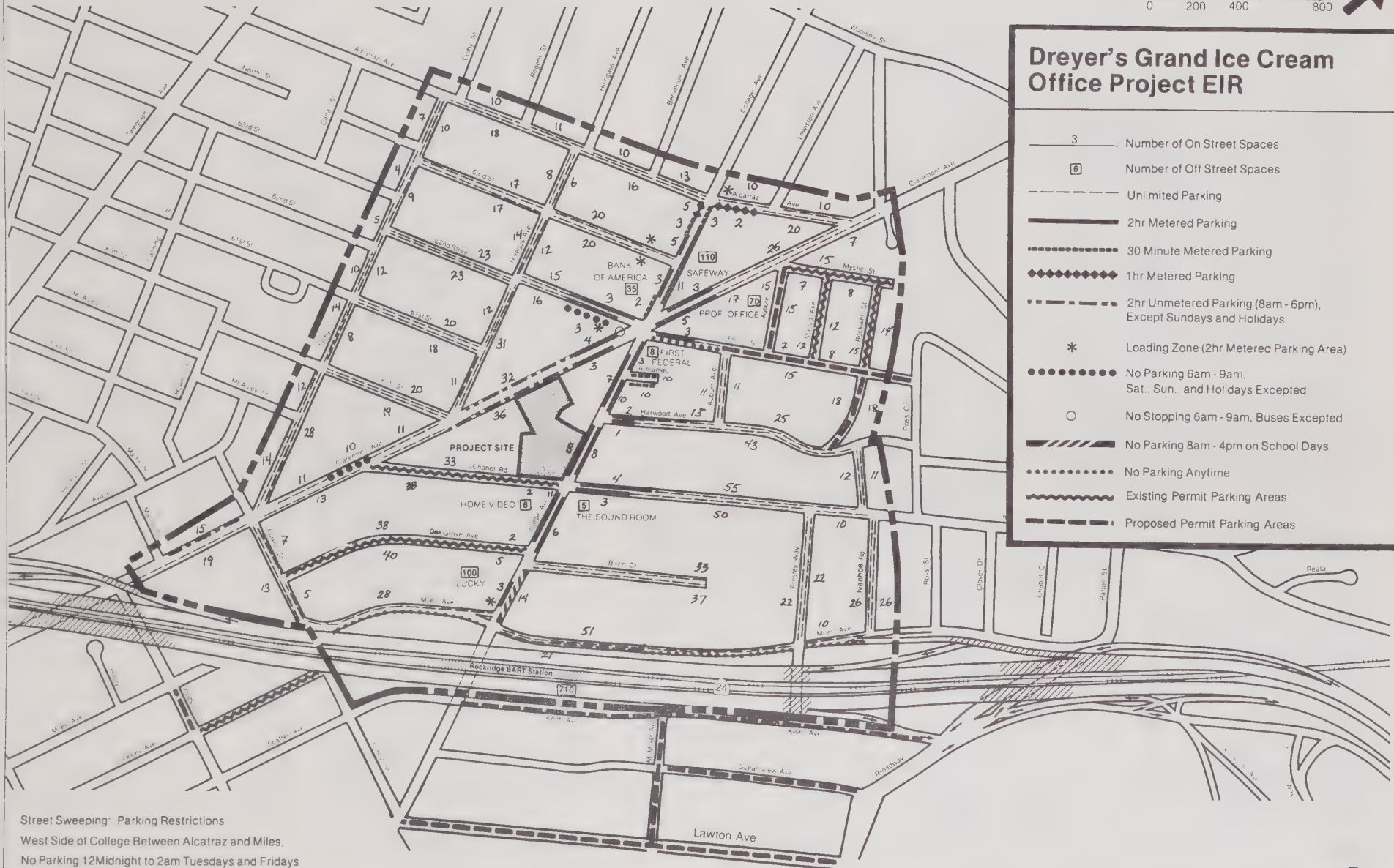
FIGURE 4.4-3

SOURCE: THOMSON ENGINEERS



Dreyer's Grand Ice Cream Office Project EIR

- 3 Number of On Street Spaces
- 6 Number of Off Street Spaces
- Unlimited Parking
- 2hr Metered Parking
- 30 Minute Metered Parking
- 1hr Metered Parking
- 2hr Unmetered Parking (8am - 6pm), Except Sundays and Holidays
- * Loading Zone (2hr Metered Parking Area)
- No Parking 6am - 9am, Sat., Sun., and Holidays Excepted
- No Stopping 6am - 9am, Buses Excepted
- No Parking 8am - 4pm on School Days
- No Parking Anytime
- Existing Permit Parking Areas
- Proposed Permit Parking Areas



Street Sweeping/ Parking Restrictions

West Side of College Between Alcatraz and Miles,

No Parking 12Midnight to 2am Tuesdays and Fridays

East Side of College Between Alcatraz and Miles,

No Parking 12Midnight to 2am Mondays and Thursdays

There is evidence that, during the week, commuters bound for work destinations in the East Bay and San Francisco park on the streets. During the weekend the shoppers and residents replace the commuters. As a result, parking turnover is more likely higher on the weekends as shoppers park for shorter durations. Subsequently, the vehicular activity is more pronounced during the midday on a Saturday compared to that during the week. During the week, however, the a.m. and p.m. peak hour traffic volumes are higher due to the larger volume of people moving through the area within a short period.

Since the surveys were conducted, the Residential Permit Parking Program has been implemented on several streets in the area including Chabot Road between College and Claremont Avenues. The effects of this program have not been studied, however discussion with City staff have indicated three major points.

First, the long-term parkers have been eliminated from the Residential Permit Parking streets. It is yet uncertain whether these parkers have been eliminated from the Rockridge area or are parking at a further distance away. Complaints from the residents on Birch, for example, indicate that some of these parkers have moved to other streets.

Second, the Residential Permit Parking Program does not need the capacity of both sides of the streets. The City staff has found that the streets with Residential Permit Parking have under-utilized parking spaces. Consideration should be given to possibly allocating only one side of the street for Residential Permit Parking or provide for four-hour parking under the Permit Program.

Three, the City has decided to provide permits to the merchants and residents on College Avenue in certain blocks such as the west side of College between Claremont Avenue and Chabot Road. These merchants and residents would be provided stickers allowing parking on the curbs contiguous to their block face. These merchants and residents typically do not have any parking and have traditionally parked on the side streets.

The Residential Permit Parking Program is a parking management tool which is currently in its initial stage of implementation. City staff is spending a tremendous amount of time maintaining and developing the program so as to balance the parking needs of the users and the area residents and merchants.

On Saturday, the use of the off-street parking lots drops to 50% occupancy. This is due to low usage of the BART parking lot, which is at 34% occupancy between 10 a.m. and 2 p.m. on a Saturday.

Appendix C, Parking, has been included at the end of this document and presents survey information on parking studies in the area. Figures C-1 through C-5 in Appendix C illustrate how the parking condition in the area varies by time of day and day of the week.

Traffic Operations Associated with the Existing Dreyer's Facilities

Currently, 100 people are employed at the Dreyer's factory, office, and ice cream store. Seventy employees work in the factory and 27 work in the offices and ice cream store. The majority (57%) of the factory employees working the day shift arrive before 7:15 a.m. and leave before 3:45 p.m. Approximately 27 employees arrive at work between 7:45 and 8:45 a.m. and 26 employees leave work between 5:00 and 6:00 p.m. Approximately 90% drive to work (4% in carpools), 6% take bus or BART, and 4% either walk or bicycle. The factory employs people around the clock. The swing shift includes approximately 30 employees, and the night shift has approximately seven employees.

Approximately 682 person trips per day currently occur at the site. Of these, 416 are automobile trips and 114 are truck trips. During the a.m. and p.m. peak hour this existing site generates 37 vehicular trips and 44 vehicular trips, respectively. The trip generation data is provided in Appendix B, Table B-4.

Dreyer's provides 35 off-street parking spaces in two on-site parking lots. One lot is just north of the Dreyer's retail ice cream store on College Avenue and has 18 spaces. The second parking lot is at the corner of College Avenue and Chabot Road, is accessible from Chabot, and has 17 spaces. Dreyer's also leases five spaces off-site on College Avenue across the street from the project site.

The parking demand associated with the existing factory, office and retail space was determined based on surveys of the site and of the area. The existing parking demand is 71 parking spaces. This is split as the 46 long-term spaces (for employees) and 25 short-term spaces (for visitors and patrons). The result is a current demand for 31 on-street spaces, the 25 short-term spaces plus the six long-term spaces not met by the off-street parking.

Dreyer's Truck Traffic. Service vehicle (truck) activity for the Dreyer's Factory and Office currently occurs at three loading docks. One loading dock is located off of Chabot Road, one is accessible from College Avenue and one is within the Dreyer's warehouse (accessible from Claremont). Total truck traffic associated with the factory, office and restaurant/retail is 114 truck trip ends per day (see Table B-4 in Appendix B).

Table B-2, Appendix B, summarizes the activity by dock. The use of the Chabot loading dock has been minimized to just production trucks and the receiving of several raw ingredients that need immediate refrigeration, such as fruits, nuts and chocolate additives. An average weekday survey indicated 19 trucks use the Chabot loading dock.

The remaining raw ingredients are received at the College Avenue loading dock and all the dry ingredients are received from the Claremont dock. The College Avenue loading dock receives about 16 truck trip ends per day and the Claremont dock about 10 trucks per day. In addition, about 12 trucks per day provide miscellaneous deliveries.

Truck traffic has been of concern to local residents. To reduce truck traffic, the City has posted Chabot Road to prohibit trucks above four and one-half tons between Claremont and College Avenue. All trucks above four and one-half tons that are not destined for driveways on Chabot Road are prohibited on Chabot Road. Dreyer's has reduced its truck usage of Chabot Road by adopting the following measures:

- o Truck activity at the Chabot Road dock averages five Dreyer's trucks per day picking up ice cream for transport to the Union City plant and 14 trucks delivering pecans, fruits, chocolate bits, etc.
- o Truck activity at the Chabot Road dock is limited to 7:00 a.m. to 9:00 p.m. Night delivery activity (three deliveries of dairy products per night and one sugar tanker per day) takes place at the College Avenue loading dock.

For truck volumes on Chabot Road see Table B-2, Appendix B.

Existing Transit Services

The project site is served by two public transit systems: The Alameda/Contra Costa Transit District (AC Transit) and Bay Area Rapid Transit District (BART).

AC Transit. There are six AC Transit lines serving the Dreyer's area. Headways vary from five to 30 minutes during the a.m. and p.m. peak periods. The lines that provide the most convenient access to the site are lines E, E-1, EX (express lines) and lines 17, 40, 51, and 51A (see Figure 4.4-4).

The p.m. peak hour load factors on AC Transit routes, serving the Dreyer's project, range from 0.13 to 0.89 and are shown in Table 4.4-2.

BART. The Rockridge BART station is located 1,000 feet south of the project site in the median of State Route 24, at College Avenue, between Miles and Keith Avenues.

BART runs one route through the Rockridge Station between Concord and Daly City. The load factor on this route is 1.11. BART stations on the Richmond-Fremont line (other than downtown Oakland stations, which are directly accessible) can be reached by transferring to that line at one of the three downtown Oakland stations.

Existing Pedestrian/Bikeway Circulation. Adjacent to the project site, the greatest pedestrian activity occurs at the intersection of Chabot and College Avenues during weekends.

Overall, pedestrian flows are "unimpeded" or "open". (These categories provide at least 130 sq.ft. per pedestrian.)² On a typical weekday, "satisfactory" conditions exist at all of the intersections during the a.m. and p.m. peak periods.

The nearest signed bike routes to the project site are the regional bike route along College Avenue and Chabot Road which connects the Rockridge BART station and Skyline Boulevard; and the City bike route on Shafter Avenue, Forest Street and Colby Street which connects U.C. Berkeley and downtown Oakland (see Figure 4.4-4).

IMPACTS

Trip Generation

The existing Dreyer's facility consists of a mixture of factory, office and retail space. Approximately 70 factory employees and 27 office and retail employees are currently

TABLE 4.4-2
EXISTING LOAD FACTORS
AC Transit - BART

AC TRANSIT - PM PEAK PERIOD (4:00 - 6:00 P.M.), PEAK DIRECTION¹

<u>Screen Lines</u>	<u>Existing Load Factors²</u>
A. San Francisco	0.13
B. North, West Oakland, Berkeley	0.65
C. Piedmont, Oakland Hills	0.63
D. East Oakland, San Leandro	0.89
E. Alameda	0.87

BART - PM PEAK PERIOD TRAINS³

<u>Route</u>	<u>Existing Load Factor²</u>
Concord/Daly City, 4:00 - 6:00 p.m.	1.11

¹Source: Kaiser Center Master Plan, Draft EIR, December 1986, pp. 4-75.

²Load factor is the ratio of passengers to capacity. Seating capacity is assumed to be fixed over the period.

³Source: Bay Area Rapid Transit District, Quarterly Performance Report, Jan.-Mar. 1987, p. 24.

4-2

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working on the site. The proposed project would employ about 150 office workers. The proposed retail/restaurant portions of the project would employ an estimated nine retail and five restaurant workers. This would create a total of about 164 on-site people which represents an increase of approximately 70 workers, although some current workers are employed on a night shift. There would be no factory employees retained on the site in the proposed project.

Office and factory workers do not share the same modes of travel, nor do they travel during the same hours. Estimates of the existing person trips were made under existing conditions and compared to the proposed project.

To estimate the existing travel patterns, 19 employees at the Oakland and 53 employees at the Lafayette facilities were interviewed on January 17, 1989 to determine their current travel characteristics to and from work. Ninety-five percent of the employees responded to the interview. The survey results are presented in Table B-3, Appendix B. Trip generation rates used in this analysis for the existing facility and proposed project are based on this employee survey and supported with information from the Institute of Transportation Engineers (ITE) Trip Generation Manual. A trip rate of 3.50 person-trips per day per employee was found, with 0.71 and 0.72 employee trips per employee in the peak a.m. and p.m. hours, respectively. See Table B-4, Appendix B for the variation in employee peak hour trips by land use.

The combined employee and visitor trip generation for the proposed project, including office, retail, and restaurant is estimated to be 1,215 daily person-trips, 101 in the a.m. peak hour and 171 in the p.m. peak hour. The number of visitor trips generated by the proposed project would be consistently greater than visitor trips generated by the existing facility. There would be an increase of about 533 daily person trips, with 59 in the a.m. peak hour and 113 in the p.m. peak hour.

Table 4.4-3 shows the number of existing employee and visitor trips to and from the project site, the estimated number of person trips with the proposed project, and the net change in person trips for daily a.m. and p.m. peak hour periods.

TABLE 4.4-3
PERSON-TRIP GENERATION

	<u>Daily</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
<u>Existing</u>			
Employees	299	22	19
Visitors	<u>383</u>	<u>20</u>	<u>39</u>
Total	682	42	58
 <u>Proposed Project</u>			
Employees	505	77	98
Visitors	<u>710</u>	<u>24</u>	<u>73</u>
Total	1,215	101	171
<u>Net New Person-Trips</u>	533	59	113

Travel patterns for the employees of the proposed project would differ somewhat from the existing facility workers. The existing factory workers tend to arrive before the a.m. peak hour begins and they leave before the p.m. peak hour begins. In the proposed project, office workers would replace the factory workers. Office workers tend to travel during the a.m. and p.m. peak hours.

Appendix B, Table B-3, presents complete trip generation tables for the existing facility and for the various land use components of the proposed project. Employee and visitor trips are included. Please refer to Appendix B for the actual trip generation calculations.

Mode Split

Surveys were also used to establish the existing and future employee and visitor mode splits. Table 4.4-4 shows the mode split assumptions used for existing and proposed project employees and visitors. Journey to Work data, from the 1980 Census and surveys at Dreyer's Lafayette and Oakland offices, established that future office employees on College Avenue would probably use drive-alone auto transportation to a lesser degree than existing factory workers.

Vehicle Trips

The proposed project would generate an additional 334 daily auto trips and would eliminate about 99 daily truck trips for a net increase of 235 vehicle trips. It would add 46 auto trips in the a.m. peak hour and 77 auto trips in the p.m. peak hour, while eliminating ten truck trips in the a.m. peak hour and ten trips in the p.m. peak hour.

Table B-4 in Appendix B shows the number of existing daily and peak hour vehicle trips, proposed project vehicle trips, and the net change in vehicle trips for both autos and trucks.

Project Traffic Impacts

AM peak hour analyses were conducted at eight intersections identified by the City in the project vicinity. These intersections are shown in Table 4.4-5 and Figure 4.4-5. During the a.m. peak hour, all of the intersections analyzed operated with acceptable levels of service. Addition of vehicle trips from the proposed project would marginally affect some of the intersections analyzed, but in none of the cases would project traffic cause a noticeable change in activity or change in LOS.

TABLE 4.4-4
MODAL SPLIT SUMMARY

	Employees (Percentage)				
	<u>Existing Office</u>	<u>Existing Factory</u>	<u>Proposed Office</u>	<u>Proposed Retail</u>	<u>Proposed Restaurant</u>
Drive	86.0	86.0	70.3	63.3	63.3
Passenger	4.0	4.0	7.5	8.3	8.3
A.C.	2.0	2.0	2.5	3.7	3.7
BART	4.0	4.0	14.7	7.3	7.3
Other	<u>4.0</u>	<u>4.0</u>	<u>4.9</u>	<u>17.4</u>	<u>17.4</u>
	100.0	100.0	100.0	100.0	100.0
	(1)	(1)	(1,3,4)	(2)	(2)

	Visitors/Patrons (Percentage)				
	<u>Existing Office</u>	<u>Existing Factory</u>	<u>Proposed Office</u>	<u>Proposed Retail</u>	<u>Proposed Restaurant</u>
Drive	86.0	27.0	86.0	41.3	51.7
Truck	4.0	73.0	4.0	1.0	2.0
Passenger	4.0	0.0	4.0	34.6	23.3
A.C.	2.0	0.0	2.0	0.0	4.0
BART	2.0	0.0	2.0	0.0	1.9
Other	<u>2.0</u>	<u>0.0</u>	<u>2.0</u>	<u>23.1</u>	<u>17.1</u>
	100.0	100.0	100.0	100.0	100.0
	(1)	(1)	(1)	(2)	(2,5)

¹Thomson Engineers Survey of Dreyer's Employees, May, 1987.

²Rockridge Background Papers on Specific Plan, May, 1987.

³1980 Census Information for Journey to Work.

⁴Thomson Engineers Survey, January, 1989.

⁵Thomson Engineers Survey, July, 1988.

TABLE 4.4-5
 EXISTING AND FUTURE INTERSECTION CONDITIONS
 AM PEAK HOUR (PM PEAK HOUR)
 Volume to Capacity Ratios (V/C) and Levels of Service (LOS)

<u>Intersection</u>	<u>Existing</u>		<u>Existing With Project</u>		<u>Cumulative with Project</u>	
	<u>V/C</u>	<u>LOS</u>	<u>V/C</u>	<u>LOS</u>	<u>V/C</u>	<u>LOS</u>
1. Clifton & Claremont	0.28 (0.44)	A A)	0.29 (0.44)	A A)	(0.44	A)
2. Hudson & Claremont	0.83 (0.37)	D A)	0.83 (0.37)	D A)	(0.37	A)
3. Forest, Colby & Claremont	0.80 (0.78)	D C)	0.80 (0.78)	D C)	(0.81	D)
4. College & Claremont	0.84 (1.00)	D F)	0.86 (1.00)	D F)	(1.05	F)
5. Miles & College	0.42 (0.21)	A A)	0.43 (0.21)	A A)	(0.23	A)
6. Keith, Shafter & College	0.51 (0.65)	A B)	0.52 (0.61)	A B)	(0.79	C)
7. Chabot & Claremont	0.22 (0.31)	A A)	0.25 (0.35)	A A)	(0.35	A)
8. Chabot & College	0.47 (0.58)	A A)	0.47 (0.60)	A B)	(0.62	B)

¹Estimated intersection conditions for 1990.

Source: Thomson Engineers.

INTERSECTIONS STUDIED

FIGURE 4.4-5



Analyses were also conducted for the same eight intersections for the p.m. peak hour (Table 4.4-5). All intersections analyzed operated within acceptable conditions with the exception of College Avenue/Claremont Avenue, which currently operates at LOS F. The proposed project would marginally affect the operation of the College and Claremont Avenues intersection.

The project would increase traffic on State Route 24 by 0.3%, hence the impact is insignificant.

Circulation

The small change in traffic volumes that would result from this project would not significantly change circulation patterns in the area. Some improvements would occur in that the access to the employee parking would be located on Claremont Avenue and hence reduce traffic to the site via Chabot Road.

Parking Impacts

The proposed project would provide 132 off-street parking spaces in a parking lot located behind the proposed building. Access to the lot would be from Chabot Road and Claremont Avenue.

City of Oakland parking requirements would require 64 spaces, calculated as shown on Table 4.4-6.

The peak weekday demand for the proposed project has been determined by combining the project's long-term demand (employees) and the short-term demand (visitors).

Long-term parking demand was determined according to the number of Dreyer's employees working on the site and their rate of auto usage. Short-term demand is based on the estimated parking rate per 1,000 square feet of each building use. Table 4.4-6 shows the long- and short-term parking demands for the proposed project. A total demand of 135 spaces is estimated. Thus, the proposed project would have a parking shortfall of three spaces.

TABLE 4.4-6
PROJECT PARKING

A. PROJECT PARKING REQUIREMENTS¹

	<u>Gross Square Feet</u>	<u>Required Parking Rate</u>	<u>Spaces Required</u>
Office	49,109	1 space per 900 sq. ft.	55
General Retail	7,999	1 space per 900 sq. ft.	9
Food Service	2,000	None required.	--
Total Number of Spaces Required by Code:			64

B. PROJECT PARKING DEMAND

	<u>Long-Term Demand</u>	<u>Short-Term Demand</u>	<u>Total Demand</u>
Office	92	4	96
General Retail	5	16	21
Food Service	3	15	<u>18</u>
Total Project Parking Demand:			135
Project Parking Demand with TSM ²		131	

C. PROJECT PARKING SUPPLY

Total Project On-Site	132
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¹City of Oakland, Planning Code, Section 7500.

²If Dreyer's were to implement a TSM program, which would include a BART or AC Transit pass program, a shift of auto-to-transit in the range of 4% of long-term parking (4 spaces) can be attained. (Source: Dreyer's Survey, January 1989, by Thomson Engineers).

The proposed project would remove an existing on-street parking demand estimated to be 31 spaces. Also, the project would create three to four additional on-street spaces via the removal of the driveways on Claremont Avenue. The proposed project would therefore create or make available approximately 35 additional on-street parking spaces.

Service Vehicle Impacts

A total of about 114 trucks and service vehicles visit the Dreyer's plant daily. With the relocation of the factory away from the College Avenue site, these truck and service vehicles would be eliminated from the area. Dreyer's activities, which now occur at the factory around the clock, would generally be replaced by an office staff working a standard business day.

The proposed project would still have visits by service vehicles and, based on the operation of the existing Dreyer's offices in Oakland and Lafayette, approximately 15 service vehicle visits would occur at the proposed project site. This represents a reduction in daily service vehicle and truck trips of about 99, or 87%.

Transit Impacts

As shown in Table B-4, Appendix B, the proposed project would result in the addition of about 14 new daily person trips on AC Transit and 64 daily person trips on BART. Of these, there would be two trips on AC Transit and 11 trips on BART in the a.m. peak hour. During the p.m. peak hour, there would be three trips on AC Transit and 14 BART trips. The project impacts to the transit system would be negligible.

Pedestrian Impacts

The proposed project would generate about 113 new p.m. peak-hour person trips. Of these, only about 30 would be external to the site, as many employees that drive or carpool would simply walk to the parking lot to reach their car.

Presently, major crosswalks adjacent to the site have open or unimpeded pedestrian flow during the peak 15-minute period within the p.m. peak hour. The most heavily used corridor adjacent to the site is along College Avenue. Most of the project's pedestrian trips would be those associated with the restaurant and the proposed retail uses at the northwest corner of College Avenue and Chabot Road. Because the restaurant would replace existing food service, projected pedestrian volume changes are negligible. No changes in pedestrian levels of service are anticipated.

Construction Impacts

The construction of the project would be conducted in two phases and would take approximately one year to 16 months. Phase I would involve the relocation of employees from the present site to locations in Lafayette and Union City. Demolition of the existing on-site structures would then begin. Phase II would involve the construction of the new office building and parking lot on the site. Actual construction of the building would take about one year.

Based on experience at other Oakland construction sites, almost all construction workers would drive to work. Vehicle trip generation during construction would be about 25 vehicles during the a.m. peak hour. Parking demand associated with the peak phase of construction would be about 20 spaces. The proposed off-street parking lot would be used for construction staging and could provide some parking. In general, construction workers could park on the street, subject to metering and permit parking. Parking demand associated with construction workers would be about the same as the current parking used by the factory and its employees.

The specific street and sidewalk closures necessary during construction are not yet known, but the following requirements would be applicable based on other projects.

- o Parking may have to be prohibited adjacent to the site on College Avenue, Chabot Road, and Claremont Avenue during construction to minimize hazards.
- o Closure of all travel lanes on perimeter streets would negatively impact traffic operations and should be avoided. If any additional space is needed for construction staging, a single lane could be removed from Claremont Avenue where two lanes in each direction are available.
- o Sidewalks may have to be closed temporarily adjacent to the construction site. Temporary pedestrian walkways should be installed.

- o Closure of sidewalk, parking lane and/or traffic lanes is subject to the approval of the Director of Public Works. The Contractor would be required to obtain the necessary obstruction permits from the Traffic Engineering and Parking Division.

Cumulative Traffic

The BART parking lot expansion is the only major project underway in the Rockridge area. The BART project would add 500 parking spaces to the already existing 710 spaces. This would be done by adding a deck for 300 spaces west of College Avenue and another deck for 200 spaces east of College Avenue. The driveways would remain at their existing locations and all ramps would be internal.

The eight intersections previously analyzed were analyzed for the p.m. peak hour with the addition of traffic associated with the BART project.

The results of the analyses are shown in Table 4.4-5. The major change occurs at the intersection of Keith and College where the V/C ratio moves from 0.61 to 0.79. However, the intersection would continue to operate under acceptable conditions. The BART project would also impact the intersection of College and Claremont Avenues which without the BART project would operate at a V/C of 1.0, with the BART project the V/C ratio would increase to 1.05.

It is important to recognize that various gateway constraints control the extent to which cumulative traffic can increase in the area. Examples of these gateways are the intersection of Tunnel Road and Claremont Avenue and the intersection of College Avenue and Ashby Avenue/Tunnel Road. No geometric changes are anticipated that would increase capacity.

MITIGATION MEASURES

No significant impacts were projected on intersection levels of service, parking, transit, pedestrian activity, or service vehicle activity. The College and Claremont Avenues intersection would operate at Level of Service F during the p.m. peak hour with and without the project.

In order to mitigate the project's parking shortfall and to respond to the cumulative traffic and CO concentration impacts at the College and Claremont Avenues intersection,

Dreyers should implement a Transportation System Management (TSM) Program. This program should be developed by a professional TSM consultant and should be subject to approval by the City. The goal of the TSM program would be to maintain the existing transit usage and to shift more employees into transit and shared vehicles/carpools. Dreyers should designate an employee as a part-time TSM coordinator to be responsible for coordination and implementation of the TSM program. The TSM program for the Dreyer's project could consist of the following elements: Marketing Program, Transit Passes, Parking Management Program, and Van and Carpooling.

Marketing Program

A marketing program would consist of the following:

- a. New employee commute alternatives information packets.
- b. Distribution of promotional materials specific to public transit and ride sharing.
- c. Regular publication and distribution of a listing of transportation system changes affecting accessibilities to and mobility within the greater downtown area.
- d. Coordination of special events related to transportation and commute alternatives for employees on a regular basis.

Transit Passes

As an incentive for employees shifting to transit, BART or AC Transit passes should be subsidized by Dreyer's.

Parking Management Program

The Parking Management Program would include managing the parking supply for the office and for the retail uses. For the office use, preference to vanpools and carpools should be given by identifying parking spaces for their use close to the building.

It is anticipated that with the TSM program, a shift of auto-to-transit of long-term parking could be attained, which could reduce the parking demand. The proposed project would provide 132 parking spaces; hence, with the TSM program, all of the parking demand could be provided off-street.

Car and Van Pooling

Vanpooling should be encouraged for Contra Costa County residents. There is an existing carpool parking area at the Gateway Boulevard exit on Highway 24 east of the Caldecott Tunnel. Dreyers could provide a shuttle van from this location to the proposed project.

Dreyers should set a goal of 30% participation of employees in a transit, carpooling or shuttle van mode of commuting to and from the proposed project office.

The effectiveness of the TSM program should be monitored on a monthly basis by Dreyers. If the goal is not met, adjustments to the TSM program should be made. An annual report on the effectiveness of the program should be submitted to the Oakland City Planning Department.

¹Capacity of on-street parking is 85% of the supply. Fifteen percent is lost to vehicles maneuvering in and out.

²Pushkarev, B., and J.M. Zupan, Urban Space for Pedestrians, MIT Press, Cambridge, MA, 1975.

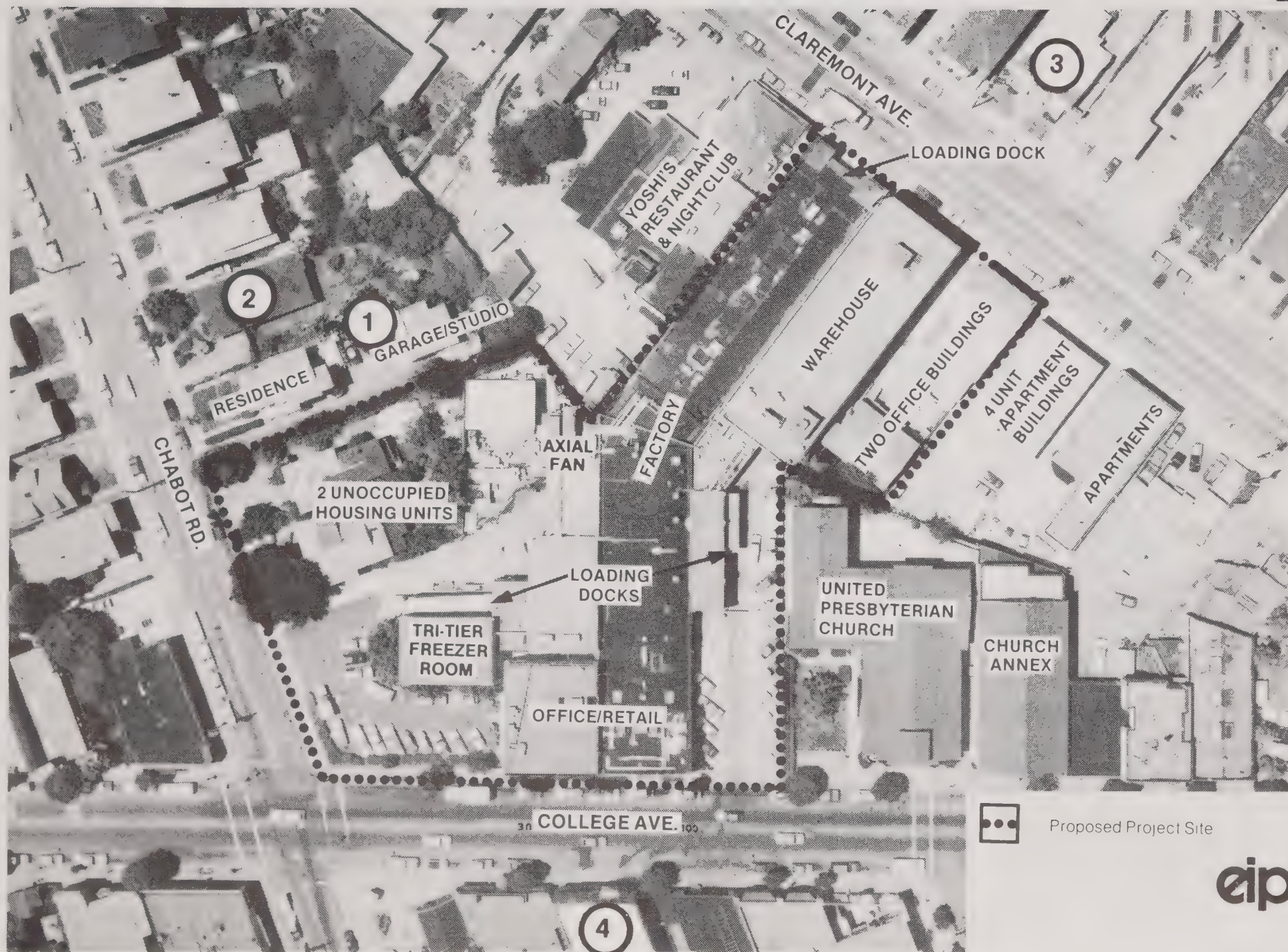
4.5 NOISE

SETTING

To quantify noise levels in the study area, noise measurements were made at the four locations shown on Figure 4.5-1. The measurements at each location were made over a 24-hour period except that at Location 3 on Claremont Avenue, the measurement was conducted over a 22-hour period.¹ In addition to the long-term measurements at these locations, the Dreyer's ice cream factory was toured to identify the noise sources there.

The major existing noise sources in the area are the mechanical equipment associated with the Dreyer's ice cream factory and traffic on the adjacent streets. An axial fan located behind the factory in the middle of the block and the tri-tier freezer room located near the intersection of Chabot Road and College Avenue are the major continuous noise sources (see Figure 4.5-1). Traffic on Chabot Road, College Avenue, and Claremont Avenue is also a major noise source.

The traffic on these streets includes truck and automobile traffic generated by the Dreyer's ice cream facility. As noted in the transportation section of this EIR, Dreyer's presently generates about five large diesel truck trips per day between the hours of 7 a.m. and 4:30 p.m. Additionally, there is one tanker truck delivery between 6 a.m. and 7 a.m. and one tanker truck delivery typically between 9 p.m. and 1 a.m., although this delivery can occur any time at night up until 6 a.m. There are also about 15 smaller truck and van deliveries each day. Trucks delivering ingredients to the factory generally travel up Chabot Road to College Avenue and either deliver the goods to the College Avenue loading dock or turn left onto Claremont Avenue and deliver to the entrance on Claremont Avenue. After delivering the goods, these trucks continue on College Avenue and down Claremont Avenue back to the freeway. Finished ice cream is loaded on to Dreyer's trucks at the loading dock off Chabot Road. Trucks reach this dock by travelling up Chabot Road. When they leave, they continue up Chabot Road to College Avenue, turn left, and then travel down College Avenue to Claremont Avenue where they turn left and head back to the freeway. The general circulation plan, therefore, is clockwise around the Chabot-College-Claremont loop.



Tables 4.5-1 through 4.5-4 summarize the hourly noise measurements at each location. During each hour, the data shows the maximum noise level recorded (L_{max}), the lowest sound level recorded (L_{min}), the average noise level (L_{eq}), and the noise levels exceeded 01, 10, 50, and 90% of the time (L_{01} , L_{10} , L_{50} , and L_{90}). Together these data provide a comprehensive description of the environmental noise level at a given location. Readers unfamiliar with the fundamental concepts and terminology of environmental acoustics should refer to Appendix D for a further explanation. Because it is complicated and often not necessary to report all of these values for a given location, the day/night average noise level, or L_{dn} , is commonly used to provide a single number rating of the environmental noise level at a given location. The L_{dn} is arrived at by averaging, on an energy basis, the 24 one-hour L_{eq} after a 10 decibel penalty is added to the L_{eq} s for the hours between 10 p.m. and 7 a.m. This penalty is added to account for the increased sensitivity of people to noise that occurs during the sleeping hours. The L_{dn} was first developed by the United States Environmental Protection Agency to evaluate environmental noise. Since 1976, State law has required that each city and county, when updating the noise element of their general plan, use the L_{dn} to describe, evaluate, and recommend criteria for controlling environmental noise. The L_{dn} at each measurement location is shown on the corresponding table. For purposes of comparison, the United States Environmental Protection Agency has recommended that the outdoor noise level requisite to protect the public health and welfare with an adequate margin of safety is an L_{dn} of 55 dB. In California, most urban communities have determined that the upper limit of acceptability for residential uses is an L_{dn} of 60 dB. Above an L_{dn} of 60 dB, mitigation measures are required to be incorporated in new residential projects. An L_{dn} of 65 dB is generally considered compatible with commercial uses.

The noise environment at Measurement Location 1, representative of the dwellings closest to the existing Dreyer's ice cream factory, is dominated by the noise generated by an axial fan located at the southern end of the plant. The sound level measured at Site 1 due to the fan was 52 to 55 dBA over the entire 24-hour period. The maximum noise levels noted at this measurement location were generated by the vehicles of the existing residents at this location, primarily engine ignition and idle adjacent to the microphone. The L_{dn} at this location was measured to be 61 dB. It was calculated that the L_{dn} generated by the fan at Dreyer's would have been 60 decibels alone.

TABLE 4.5-1

SITE 1: HOURLY NOISE MEASUREMENTS

Behind 5939 Chabot Road Above the Side Yard Fence
2 PM, Monday, July 6, 1987 to 2 PM, Tuesday, July 6, 1987

Hour Beginning	L_{eq} ¹	L_{max} ²	L_{min}	L_{01} ³	L_{10}	L_{50}	L_{90}	Comments
<u>July 6</u>								
2:00 pm	57	76	47	65	57	55	54	
3:00 pm	56	71	53	66	56	54	54	
4:00 pm	55	72	53	61	56	55	54	
5:00 pm	56	69	53	63	56	55	54	
6:00 pm	56	68	54	62	57	56	55	
7:00 pm	57	70	54	65	57	56	55	
8:00 pm	56	78	51	64	57	55	53	
9:00 pm	56	67	54	60	57	55	55	
10:00 pm	65	96	53	65	56	55	54	Vehicles directly below monitor
11:00 pm	55	65	53	59	56	55	54	
<u>July 7</u>								
12:00 am	55	66	52	57	55	54	54	
1:00 am	54	64	51	57	55	54	54	
2:00 am	52	64	51	56	53	52	52	
3:00 am	53	57	51	54	54	53	52	
4:00 am	53	63	52	55	54	54	52	
5:00 am	55	62	53	57	55	55	54	
6:00 am	60	82	51	76	56	55	53	Vehicle directly below monitor
7:00 am	59	77	54	71	60	56	55	
8:00 am	58	74	53	69	59	56	54	
9:00 am	57	69	52	65	58	55	54	
10:00 am	57	71	53	66	58	56	55	
11:00 am	57	80	54	66	57	55	54	
12:00 pm	56	71	53	63	56	55	54	
1:00 pm	55	66	51	59	56	55	54	

$L_{dn} = 61$

¹ L_{eq} = The average A-weighted noise level during the measurement period.

² L_{max} = The maximum sound level measured during the hour.

³ L_{01} , L_{10} , L_{50} , L_{90} = The A-weighted noise levels that are exceeded during the measurement period, 01%, 10%, 50%, and 90% of the time, respectively.

TABLE 4.5-2
 SITE 2: HOURLY NOISE MEASUREMENTS
 5925 Chabot Road at Front Porch
 45 Feet from the Centerline of Chabot Road
 3 PM, Monday, July 6, 1987 to 3 PM, Tuesday, July 7, 1987

Hour Beginning	L_{eq}^1	L_{max}^2	L_{min}	L_{01}^3	L_{10}	L_{50}	L_{90}	Comments
<u>July 6</u>								
3:00 pm	58	77	39	70	61	51	49	
4:00 pm	57	78	47	68	60	51	49	
5:00 pm	57	71	48	66	61	54	50	
6:00 pm	59	75	51	69	62	57	54	
7:00 pm	59	76	51	69	62	57	54	
8:00 pm	59	79	50	70	62	55	52	
9:00 pm	57	71	52	67	59	56	54	
10:00 pm	57	75	48	68	59	54	51	
11:00 pm	53	74	47	64	54	51	49	
<u>July 7</u>								
12:00 am	52	72	44	64	52	49	48	
1:00 am	51	70	45	63	51	48	46	
2:00 am	49	70	43	59	49	46	45	
3:00 am	46	63	42	53	48	45	44	
4:00 am	50	70	44	56	51	48	46	
5:00 am	55	71	48	64	57	53	50	
6:00 am	59	81	51	69	59	56	53	
7:00 am	63	82	52	76	65	57	54	
8:00 am	60	74	51	71	64	56	54	
9:00 am	59	79	49	68	63	55	51	
10:00 am	60	82	47	71	63	56	50	
11:00 am	71	103	47	68	61	51	49	Spurious local noise not used in L_{dn} calculation
12:00 pm	57	74	47	68	61	52	49	
1:00 pm	59	76	47	69	64	54	49	
2:00 pm	60	74	49	68	64	56	52	

$L_{dn} = 62$

¹ L_{eq} = The average A-weighted noise level during the measurement period.

² L_{max} = The maximum sound level measured during the hour.

³ L_{01} , L_{10} , L_{50} , L_{90} = The A-weighted noise levels that are exceeded during the measurement period, 01%, 10%, 50%, and 90% of the time, respectively.

TABLE 4.5-3
 SITE 3: HOURLY NOISE MEASUREMENTS
 6045 Claremont Avenue on Front Porch
 52 Feet from the Centerline of Claremont Avenue
 5 PM, Tuesday, July 7, 1987 to 3 PM, Wednesday, July 8, 1987

Hour Beginning	L_{eq} ¹	L_{max} ²	L_{min}	L_{01} ³	L_{10}	L_{50}	L_{90}	Comments
<u>July 7</u>								
5:00 pm	67	81	47	76	70	65	55	
6:00 pm	66	83	49	76	70	63	54	
7:00 pm	66	81	51	74	69	63	53	
8:00 pm	64	83	50	73	68	61	53	
9:00 pm	65	83	49	75	69	62	53	
10:00 pm	65	78	50	73	69	61	54	
11:00 pm	64	85	50	74	68	57	52	
<u>July 8</u>								
12:00 am	61	76	49	72	66	54	51	
1:00 am	60	84	49	71	64	54	52	
2:00 am	59	80	52	71	61	55	53	
3:00 am	57	78	45	69	56	53	48	
4:00 am	56	78	44	68	56	52	47	
5:00 am	59	76	45	71	63	53	51	
6:00 am	64	82	51	74	69	58	54	
7:00 am	68	88	55	76	72	66	59	
8:00 am	70	87	57	79	73	67	60	
9:00 am	68	82	54	77	71	66	58	
10:00 am	68	87	54	77	71	64	57	
11:00 am	67	89	50	78	70	64	55	
12:00 pm	67	82	49	76	70	64	54	
1:00 pm	66	84	49	75	69	63	53	
2:00 pm	66	84	48	76	70	63	54	

$L_{dn} = 69$

¹ L_{eq} = The average A-weighted noise level during the measurement period.

² L_{max} = The maximum sound level measured during the hour.

³ L_{01} , L_{10} , L_{50} , L_{90} = The A-weighted noise levels that are exceeded during the measurement period, 01%, 10%, 50%, and 90% of the time, respectively.

TABLE 4.5-4

SITE 4: HOURLY NOISE MEASUREMENTS
 Rockridge Arms Apartment Building
 at 5920 College Avenue, Third Floor Fire Escape
 Noon, Tuesday, July 9, 1987 to Noon, Wednesday, July 10, 1987

Hour Beginning	<u>L_{eq}</u> ¹	<u>L_{max}</u> ²	<u>L_{min}</u>	<u>L₀₁</u> ³	<u>L₁₀</u>	<u>L₅₀</u>	<u>L₉₀</u>	Comments
<u>July 9</u>								
12:00 pm	69	82	60	78	72	67	63	
1:00 pm	71	92	59	82	72	67	63	
2:00 pm	72	99	58	81	67	67	64	
3:00 pm	69	86	60	76	71	67	64	
4:00 pm	69	84	59	78	72	67	64	
5:00 pm	69	84	61	78	72	67	64	
6:00 pm	69	88	60	78	71	67	64	
7:00 pm	69	90	61	78	71	67	64	
8:00 pm	68	83	60	76	70	67	63	
9:00 pm	68	84	60	78	71	67	63	
10:00 pm	69	97	58	79	71	66	61	
11:00 pm	67	87	57	78	69	63	59	
<u>July 10</u>								
12:00 am	66	85	56	79	69	61	58	
1:00 am	64	86	55	76	66	58	56	
2:00 am	61	82	49	74	61	56	51	
3:00 am	63	87	49	76	63	54	51	
4:00 am	56	74	49	68	57	53	51	
5:00 am	63	80	51	75	65	58	55	
6:00 am	68	87	57	80	70	63	60	
7:00 am	72	89	61	82	77	68	63	
8:00 am	71	87	59	81	73	68	63	
9:00 am	71	93	58	80	72	67	63	
10:00 am	71	89	60	82	73	67	64	
11:00 am	70	86	58	80	72	68	65	

$L_{dn} = 73$

¹L_{eq} = The average A-weighted noise level during the measurement period.

²L_{max} = The maximum sound level measured during the hour.

³L₀₁, L₁₀, L₅₀, L₉₀ = The A-weighted noise levels that are exceeded during the measurement period, 01%, 10%, 50%, and 90% of the time, respectively.

Site 2 was chosen to evaluate the noise environment at the front of the homes along Chabot Road. Noise levels here were dominated by traffic on Chabot Road. Mechanical equipment at the Dreyer's factory was audible at this location. The noise generated by the mechanical equipment at the plant measured about 44 dBA. Homes along Chabot Road closer to the factory would receive higher noise levels due to the mechanical equipment. Outside of the home adjacent to the video store (the closest residence to the factory on Chabot Road), the mechanical equipment noise level is about 50 dBA. During the late night hours, the sound of the mechanical equipment at the Dreyer's factory dominates the background noise environment outside of the homes along Chabot Road within about half a block of College Avenue. During the daytime, the sound of the mechanical equipment is generally barely audible, and the noise environment is dominated by distant traffic and traffic on Chabot Road. The highest noise levels are generated by trucks on Chabot Road. During the 24-hour measurement survey, 22 events were measured with sound levels in excess of 75 dBA and five of these were in excess of 80 dBA. Trucks travelling at 25 to 30 mph at this distance generate sound levels in the range of 75 to 83 decibels. We measured a Dreyer's ice cream truck passing Chabot Road at this distance at a maximum level of 76 dBA. According to the traffic estimates, approximately five of these events would have been Dreyer's ice cream trucks and the remaining 10 to 12 were either loud automobiles, garbage trucks, or other heavy trucks. The L_{dn} at this location was 62 dB. The L_{dn} generated by Dreyer's traffic is estimated to be less than 50 dB.

Noise levels at Site 3 were dominated by traffic on Claremont Avenue. The sound of the factory was inaudible at this location. During the 24-hour measurement period, there were 39 events that generated sound levels in excess of 80 dBA. Of these, the highest was 89 dBA. These 39 events were probably trucks, speeding or poorly muffled automobiles, and emergency vehicles. The L_{dn} at this location was measured to be 69 dB. The L_{dn} generated by Dreyer's traffic is estimated to be less than 50 dB.

The noise environment at Site 4 is dominated by traffic on College Avenue. Close-in noise measurements at the factory indicate that factory generated sound levels (generated primarily by the tri-tier freezer room) is about 50 dBA outside of the apartment building opposite the Dreyer's site on College Avenue. During the daytime,

the sound of the freezer room is masked by traffic noise. Between 2 a.m. and 5 a.m., however, it appears that background sound level is dominated by sound of this mechanical equipment. However, even during these hours, maximum and average noise levels are dominated by traffic on College Avenue. During the 24-hour measurement period, there were 69 events that generated sound levels greater than 92 dBA. Of these, 26 generated sound levels in excess of 85 dBA. The maximum sound level recorded was 99 dBA. The highest sound levels were generated by sirens and emergency vehicles. These were followed by diesel trucks and poorly muffled automobiles as the major noise generators. The maximum noise level generated by the tanker truck delivery to the Dreyer's ice cream facility during the early morning hours was measured to be 87 dBA, typical of that generated by other trucks on College Avenue. The L_{dn} at this location was measured to be 73 dB. The L_{dn} generated by Dreyer's traffic is estimated to be less than 60 dB.

IMPACTS

This section evaluates the impact of the proposed project on the noise environment at adjacent land uses. The following issues are addressed: the change in noise generated by trucks, and mechanical equipment as a result of removing the factory from the site; the change in traffic noise level along the streets serving the site due to traffic generated by the office building and parking lot and finally, the impacts associated with the construction phase of the project.

This project involves the relocation elsewhere of the factory from the Oakland site. Relocating the factory would result in the elimination of truck delivery noise, noise generated by the tri-tier freezer and the axial fan and, the roof-top mounted mechanical equipment and all the other ancillary equipment and activities at the plant. The reduction in noise level would be dramatic at the home located on the north side of Chabot Road (noise measurement location 2). The background noise level behind the homes in this area would decrease by 5 to 15 dBA, depending upon the proximity of the homes to the existing factory equipment. Noise levels would be reduced by a lesser but noticeable amount (three to ten dBA) outside the homes on the south side of Chabot Road. The noise environment along College Avenue and Claremont Avenue would continue to be dominated by the traffic on these streets. However, elimination of the truck trips, particularly the late night delivery, would reduce the number of louder events on these streets. The average noise level would not decrease.

To evaluate the potential impact of traffic generated by the proposed project on the noise environment along the streets serving the site, the change in hourly average noise level was calculated along each of the streets during the a.m. and p.m. peak traffic hours (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m., respectively). According to the Transportation section of this EIR, these are the hours of maximum traffic generation for the office building. To perform a worst case calculation, the post project traffic volumes included the increase in traffic anticipated due to growth in the area in addition to the traffic generated by the project. The greatest change would occur during the p.m. peak hour along Chabot Road. The hourly average noise level (L_{eq}) along this street would increase by one decibel after completion of the project. Traffic noise levels during other hours of the day on this street and during any hour of the day on Claremont Avenue and College Avenue would increase by less than one decibel. An increase in the hourly average noise levels of one decibel is generally undetectable except in laboratory conditions. An increase of three decibels is generally considered to be a noticeable difference. An increase of five decibels is generally considered to be a significant impact.

The mechanical equipment associated with the office and retail building would represent a new noise source in the area. Mechanical equipment for the proposed office building is expected to consist of a roof top mounted boiler cooling tower and ancillary equipment. This equipment would be enclosed on four sides by walls but would be open on the top. The equipment has not been sized at this time so it is not possible to estimate the noise levels that would be measured in adjacent residential development. It is a relatively simple matter however, to select equipment and treat it so that it does not generate excessive noise. Based on the background noise level measured during the office hours in the area, the noise generated by this equipment would be barely audible outside of the nearest home if the equipment were selected so that the A-weighted noise level did not exceed 50 dBA at the nearest home.

Noise would also be generated by automobile activity in the proposed parking lot. Typical maximum noise levels generated by doors slamming, cars being started and engines revved range from 55 to 70 dBA at a distance of 25 feet. Based on these levels, activity in the parking lot would generate noise levels outside of homes along Claremont Avenue that would be below the level generated by traffic on Claremont Avenue. Noise levels inside the back rooms of the Presbyterian church would occasionally reach 40 to 55 dBA with the

windows open and 35 to 50 dBA with windows closed. Similar noise levels would be expected inside the building located adjacent to the parking lot on the north. These noise levels would not be acceptable in a church sanctuary but would be generally considered acceptable in an office environment. It appears that the back rooms in the church are used for offices and meeting rooms.

During construction, noise levels would be temporarily elevated in the area. The major noise sources would be associated with the grading of the site. Earth moving equipment typically generates sound levels of up to 85 dBA measured at a distance of 50 feet. Outside the homes on Claremont Avenue, the noise generated by the earth moving equipment in the parking lot would be lower than noise generated by existing truck traffic on Claremont Avenue. Sound levels inside the back rooms of the church and in the adjacent office building could reach 70 dBA with the windows open. This noise level would interfere with face-to-face conversation. Other equipment would be five to ten dBA lower.

Construction of the building would be done with standard equipment. The foundation would not require driven piles. Present plans call for the office retail building to be constructed of steel frame with metal decking or steel frame with wood members. If the building is constructed with wood members, all connections would be welded. If the building is constructed with steel decking, connections would be bolted with impact wrenches. Noise generated by welding equipment would generally be below the levels generated by traffic on College Avenue and Claremont Avenue. If impact wrenches were used, they would be the loudest pieces of equipment used during construction of the project. Noise levels as high as 95 dBA have been measured at a distance of 50 feet from an impact wrench. It is probable that the use of this equipment would last for only a period of less than a month but during this time there would be interference with indoor activities in business and residences along College Avenue and Chabot Road.

During the remainder of construction, construction noise levels would generally be at about the level of the existing traffic noise in the area. Construction noise would be audible inside adjacent businesses and residences but would not be expected to interfere with conversation indoors. The major noise sources would be hammering, sawing, and truck traffic. Noise levels outside the dwelling closest to the building would be expected

to reach levels of up to 80 dBA. Construction noise could interfere with the use of the rear yard at this location, but these levels would exist only during construction of this building. Construction associated with the major portion of the building would be below the level generated by traffic on College Avenue for the businesses and residences at this location and would be at a level of up to 80 dBA outside of the nearest home along Chabot Road. This is typical of the noise level generated by a truck along Chabot Road at this time. The noise generated by hammering and sawing would be noticeable inside the front rooms of this home but would not be expected to interfere with conversation indoors.

MITIGATION MEASURES

Construction noise impacts could be mitigated by limiting construction hours to 7 a.m. to 5 p.m. and allowing work on weekdays only. All equipment should be adequately muffled. If impact wrenches are used, it may be possible to reduce the noise generated by using nylon chucks. These reduce the metal to metal contact and the corresponding noise.

To mitigate the potential impact of the noise generated by any new mechanical equipment, the equipment should be selected or controlled so that the noise generated by new mechanical equipment not exceed 50 dBA at the nearest residence.

Although not considered a significant impact, noise generated from the parking lot on the church and on the adjacent buildings could be mitigated somewhat by constructing a six-foot solid wood or masonry fence adjacent to the parking lot at this location. This would reduce noise generated by parking lot activity by five to ten decibels on the first floor of the church and on the first floor of the adjacent buildings.

¹The monitor was moved after 22 hours to the next measurement location. The data show that there is not a significant variation in the noise level in the afternoon at this location. The data for the last two hours of the 24-hour period were expected to be similar to the hours just prior to moving the monitor.

4.6 AIR QUALITY

SETTING

Regulatory Background

The Environmental Protection Agency (EPA) has established federal standards for five major criteria¹ air pollutants: photochemical oxidants (ozone), carbon monoxide (CO), suspended particulates (originally regulated as total suspended particulates or TSP, but now applicable only to particulates less than 10 microns in diameter, termed PM10), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). State ambient air quality standards for these pollutants were established in California starting in 1969, pursuant to the Mulford-Carrell Act. The federal and State standards, given in Table 4.6-1, provide acceptable durations for specific contaminant levels in order to protect sensitive receptors (i.e., people most susceptible to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by illness, and persons engaged in strenuous work or exercise) from adverse effects as indicated in Table 4.6-2.

Air Pollutant Problems and Trends

A five-year summary of the data collected at the Oakland station (located at 822 Alice Street downtown, approximately two miles from the project site) and the corresponding federal or State air quality standards, are shown in Table 4.6-3. The data in Table 4.6-3 indicate that air quality in downtown Oakland is not in compliance with the State ozone standard. Because elevated ozone levels are a regional problem, concentrations measured at the Oakland station are likely to be representative of conditions at the project site. In contrast, levels of pollutants such as CO and TSP are more sensitive to nearby sources; the Oakland data, therefore, may not adequately represent on-site conditions.

On the basis of monitoring data from this and other stations in the Bay Area, the California Air Resources Board (CARB) has designated the Bay Area a non-attainment area with respect to the national ozone and CO standards.

Regionally, the most severe and complex air quality problem is the relatively high level of ambient ozone experienced during warm, meteorologically stable periods in the summer and autumn. Ozone is not emitted directly from pollutant sources but forms in the atmosphere through a complex series of photochemical reactions involving reactive

TABLE 4.6-1
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Federal Primary Standard</u>	<u>Federal Secondary Standard</u>	<u>California Standard</u>
Ozone	1-hour	0.12 ppm	0.12 ppm	0.10 ppm
Carbon Monoxide	1-Hour	35.0 ppm	35.0 ppm	20.0 ppm
	8-Hour	9.0 ppm	9.0 ppm	9.0 ppm
Nitrogen Dioxide	1-Hour	--	--	0.25 ppm
	Annual	0.05 ppm	0.05 ppm	--
Sulfur Dioxide	1-Hour	--	--	0.5 ppm
	24-Hour	0.14 ppm	--	0.05 ppm
	Annual	0.03 ppm	--	--
Suspended Particulates ¹	24-Hour	150 $\mu\text{g}/\text{m}^3$	--	50 $\mu\text{g}/\text{m}^3$
	Annual	50 $\mu\text{g}/\text{m}^3$	--	30 $\mu\text{g}/\text{m}^3$

ppm = parts per million, $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

¹The California standards are for particulate material less than 10 microns in diameter, usually designated PM₁₀.

Source: Bay Area Air Quality Management District.

TABLE 4.6-2
HEALTH EFFECTS SUMMARY OF THE MAJOR CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Ozone	- Eye irritation - Respiratory function impairment
Carbon Monoxide	- Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin - Aggravation of cardiovascular disease - Impairment of central nervous system function - Fatigue, headache, confusion, dizziness - Can be fatal in the case of very high concentrations in enclosed places
Sulfur Dioxide	- Aggravation of chronic obstruction lung disease - Increased risk of acute and chronic respiratory illness
Nitrogen Dioxide	- Risk of acute and chronic respiratory disease
Suspended Particulates	- Increased risk of chronic respiratory disease with long exposure - Altered lung function in children - With SO₂, may produce acute illness - Particulate matter, 10 microns or less in size (PM₁₀) may lodge in and/or irritate the lungs

Source: Bay Area Air Quality Management District.

TABLE 4.6-3
OAKLAND AIR POLLUTANT SUMMARY 1983-1987

Pollutant	Standard	1983	1984	1985	1986	1987
OZONE (ppm)^a						
Highest 1-hour average Days > fed. std. (0.12)	0.12	0.12 0	0.11 0	0.12 0	0.09 0	0.09 0
CARBON MONOXIDE (ppm)^a						
Highest 8-hour average Days $\geq$ fed./state std.	9.0	7.3 0	8.0 0	5.8 0	7.5 0	4.9 0
NITROGEN DIOXIDE (ppm)^a						
Highest 1-hour average Days $\geq$ state standard	0.25	NM	NM	NM	NM	NM
SULFUR DIOXIDE (ppm)^a						
Highest 24-hour average Days $\geq$ state standard	0.05	NM	NM	NM	NM	NM
SUSPENDED PARTICULATES (ug/m³)^b						
Annual geometric mean	60	NM	NM	NM	NM	NM

^a ppm = parts per million

^b ug/m³ = micrograms per cubic meter

NM = not monitored

SOURCE: BAAQMD, Air Currents, March issues, 1983-1987.

organic compounds (ROG) and nitrogen oxides (NO_x). No single source category accounts for a majority of the ROG and NO_x emissions, and the many sources are spread throughout the Bay Area air basin. Although the Bay Area's highest ozone levels can fluctuate from year to year, standards are exceeded most often in the Santa Clara, Livermore, and Diablo valleys. Although the ozone problem in the East Bay is less severe than in the above-mentioned areas, ROG and NO_x emissions from the Oakland area are carried by the prevailing winds to the east and south where they aggravate the chronic ozone problem of those areas.

In contrast to ozone, CO is a sub-regional problem in the Bay Area. CO is a non-reactive pollutant with one major source: motor vehicles. Ambient CO distributions closely follow the spatial and temporal distributions of vehicular traffic, and are strongly influenced by meteorological factors such as wind speed and atmospheric stability. The federal and state eight-hour CO standards are occasionally exceeded in those parts of the Bay Area subject to a combination of high traffic volumes and frequent atmospheric inversions² during the winter months (i.e., northern Santa Clara, western Alameda, and southwestern Solano Counties). Violations of the eight-hour CO standard have been measured in downtown Oakland by BAAQMD mobile monitoring equipment.

Levels of TSP in the Bay Area typically show a pattern of low values near the coast. They increase with distance inland and reach their highest levels in dry, sheltered valleys, such as the Santa Clara, Diablo, and Livermore Valleys. The federal standard for 24-hour average concentrations is occasionally exceeded in many Bay Area communities. The most important particulate sources in the Bay Area are demolition and construction activity, and motor vehicle travel over paved and unpaved roads.

The major sources of NO_x, compounds which have an important role in the formation of ozone, are vehicular, residential, and commercial fuel combustion. Concentrations of NO₂, the most abundant form of ambient NO_x, are highest in the South Bay (where the standard was last exceeded in 1980 at the San Jose monitoring station), although a secondary peak is centered on the Livermore valley. The NO₂ standard has not been exceeded anywhere in the Bay Area since 1980.

The burning of high sulfur fuels for activities such as electricity generation, petroleum refining, and shipping are the major sources of ambient SO₂. The highest levels of SO₂ are recorded by monitoring stations located in a relatively narrow crescent centered on the bayshore of northern Contra Costa County, where the major sources are located. Bay area seasonal maximums, however, rarely exceed 50% of the standard and SO₂ levels at most Bay Area monitoring stations are less than 10% of the standard. The SO₂ standard is currently being met throughout the Bay Area.

To deal with violations of CO and ozone standards in the region, the BAAQMD, the Association of Bay Area Governments (ABAG), and the Metropolitan Transportation Commission (MTC) authored the 1982 Bay Area Air Quality Maintenance Plan (AQMP). The AQMP called for the imposition of additional controls on stationary and mobile sources of ROG and CO, and set forth a schedule for adopting and implementing these controls. The AQMP projected attainment of national ambient standards for CO and ozone by 1987 and their maintenance below the standards through the year 2000. The key CO and ozone strategies in the AQMP include a motor vehicle inspection/maintenance (I&M) program. In 1984, the State of California adopted a mandatory I&M program that was expected to reduce vehicular emissions of CO in the Bay Area by 16%. No additional control measures were recommended for TSP control. This problem is difficult to control with currently available methods, and the BAAQMD only recommended further research on the problem.

The 1987 monitoring data, recently made available by the BAAQMD, shows that occasional violations of the federal ozone and eight-hour CO standards (i.e., 14 days over the standard for ozone, and one day over the standard for CO) are still being measured in the Bay Area. As a result of these measurements, the BAAQMD will not be able to declare regional attainment of the ozone standard, but the Bay Area has technically become an attainment area for CO because one violation per year is allowable under federal guidelines. Official certification of the Bay Area as a CO attainment area will not mean that this air quality problem has been overcome. Weather conditions last winter were not favorable to the formation of inversions which limit the dispersion of CO. The occurrence of more severe inversion conditions in succeeding winters could cause further violations of the eight-hour CO standard to be recorded at BAAQMD street-level CO monitors in San Francisco and San Jose.

Because of the ozone standard violations, the BAAQMD will have to propose and implement additional ozone control strategies and estimate a new attainment date in order to satisfy the EPA. Otherwise, the federal government could impose a funding moratorium on the construction of highway improvements and major stationary sources of air pollutants.

IMPACTS

Project air quality impacts comprise two categories: temporary impacts due to project construction and long-term impacts due to project operation.

Construction activities would create a temporary increase in dustfall, and therefore an increase in TSP concentrations, near the project site. Equipment and vehicles generate dust during clearing, excavation and grading. Construction vehicle traffic on unpaved surfaces also increases dust, as would wind blowing over exposed earth surfaces.

The federal 24-hour average particulate standard could be violated in the vicinity of construction. It is not possible to estimate accurately the particulate concentrations that would occur at or adjacent to the construction sites because of the complexity of local meteorology and topography and variations in soil silt and moisture content. However, measurements taken during apartment and shopping center construction in the southwestern United States provide a rough indication of construction impacts on local particulate emissions; these figures indicate that approximately 1.2 tons of dust are emitted per acre per month of construction activity.³ Much of this dust is comprised of large particles which settle out rapidly on nearby horizontal surfaces. Most of the remaining fraction of unsettled large particles are easily filtered by human breathing passages. To reflect this understanding, the State of California has recently changed its standard for particulate matter to include only respirable particles less than 10 microns in diameter. Dust generated by construction is, therefore, of concern more as a soiling nuisance rather than for its unhealthful impacts. The soiling nuisance could be considerable during construction phases, however, as the area surrounding the project site is densely populated and predominantly residential. Residences adjacent to the project site (i.e., the Rockridge Arms Apartments at 5920 College Avenue, the homes along the north side of Chabot Road near College Avenue, homes along the west side of Claremont Avenue between Hillegass and College Avenues, and 6048-6060 Claremont Avenue which border the project site on the north) would be especially susceptible to soiling nuisance.

Construction vehicles and equipment and worker commute vehicles would emit exhaust at the construction sites, which would contribute to local and regional pollutant concentrations, but the amount of the increase would not be significant and would not cause violations of any air quality standards. Odors of construction equipment exhaust would probably be noticeable in the environs of the project site for the duration of construction.

Once the project is complete, emissions from vehicles associated with project operation would contribute to the regional air pollution burden. According to the transportation analysis, there would be an average of 430 net new vehicle trips generated by the project during a typical day. The traffic-related air quality impacts are shown in Table 4.6-4. Emissions of ROG and NO_x would be considered significant by the BAAQMD if they exceeded 1% of the Countywide vehicular emissions.⁴ At 0.004% and 0.007% of the County totals, respectively, project ROG and NO_x emissions would not be significant.

The project would affect air quality on the local scale, especially CO levels near heavily traveled roadways. Future CO concentrations were obtained by separately estimating the expected changes in background and local CO components. Both components were calculated by following procedures outlined in the BAAQMD's Air Quality and Urban Development. The components were then added to obtain the total CO concentration. Table 4.6-5 shows the worst-case curbside CO concentrations at the three intersections where project traffic is expected to have the greatest impact.

No present or future violations of the one-hour CO standard are predicted at any of the three intersections. However, existing violations of the eight-hour CO standard are forecast at the College/Claremont and College/Chabot intersections. CO air quality is expected to improve over the next two years due to the implementation of improved vehicular emission controls, but the CO standard violation at College/Claremont is expected to persist with or without the project because of the increase in traffic and congestion at that intersection. The primary causes of this violation would be the high cumulative traffic and Oakland's relatively high CO background. The maximum project contribution would be 0.1 ppm. The proposed project would thus contribute to the worsening of an existing violation. However, an increase of 0.1 ppm in the CO concentration at College/Claremont would probably not be measurable.

TABLE 4.6-4
EMISSIONS FROM PROJECT GENERATED TRAFFIC (tons per day)

Pollutant	Project ¹	Countywide Vehicular Emissions ²	Bay Area Air Basin Total ³
Carbon Monoxide	0.050	534.3	2,190
Reactive Organics	0.003	70.3	511
Nitrogen Oxides	0.005	67.5	456

¹Project emissions were calculated by using the California Air Resources Board URBEMIS#1 model. An average vehicle speed of 35 mph, and ambient temperatures of 75°F for CO, ROG, and NOx were assumed.

²Countywide vehicular emissions were taken from Base Year 1983 Emissions Inventory Summary Report, BAAQMD, August 1987.

³The regional totals given here are BAAQMD estimates for the year 1990. Estimates were taken from Air Quality and Urban Development, Table VI-A-2.

TABLE 4.6-5
 WORST CASE CURBSIDE CARBON MONOXIDE CONCENTRATIONS
 AT SELECTED LOCATIONS IN THE PROJECT VICINITY (in ppm)¹

<u>Location</u>	<u>Averaging Time</u>	<u>Existing 1988</u>	<u>Without Project 1990</u>	<u>With Project 1990</u>
College Avenue/ Claremont Avenue	1-hr.	14.7	15.8	15.9
	8-hr.	10.4	11.1	11.2
College Avenue/ Chabot Road	1-hr.	13.1	12.3	12.3
	8-hr.	9.2	8.7	8.7
Claremont Avenue/ Chabot Road	1-hr.	12.2	11.6	11.9
	8-hr.	8.7	8.2	8.4
Background	1-hr.	7.0	6.9	6.9
	8-hr.	5.0	4.9	4.9
Standard	1-hr.	20.0	20.0	20.0
	8-hr.	9.0	9.0	9.0

¹The tabulated concentrations are the sums of a background component, which includes the cumulative effects of all CO sources in the project vicinity, and a local component, which reflects the effects of vehicular traffic on roadways. Background and local components were obtained by using procedures outlined in Air Quality and Urban Development, BAAQMD, November 1985. Traffic data was provided by E. P. Thomson Associates.

MITIGATION MEASURES

Proposed by the EIR

Dust emissions related to construction can be reduced approximately 50% by watering exposed earth surfaces during excavation, grading and construction activities. All construction contracts should require watering in late morning and at the end of the day. The frequency of watering should increase if wind speeds exceed 15 mph. Conditions of approval should also require daily cleanup of mud and dust carried onto street surfaces by construction vehicles. Throughout excavation activity, haul trucks should use tarpaulins or other effective covers. Upon completion of construction, contractors should take measures to reduce wind erosion. Replanting and repaving should be completed as soon as possible.

Implementation of measures identified to alleviate traffic impacts including the TSM program would also mitigate the project's air quality impacts and would contribute to improving cumulative CO concentrations at major intersections.

¹Acceptable concentration levels for some pollutants are chosen after careful review of available data on health effects. Pollutants subject to federal ambient standards are sometimes referred to as criteria pollutants because the EPA publishes criteria documents to justify the choice of standards.

²An inversion is a condition under which warm air aloft limits upward movement of pollutants contained in a colder layer of air near the surface.

³BAAQMD, Air Quality and Urban Development, November 1985, p. VI-19.

⁴BAAQMD, Air Quality and Urban Development, November 1985, p. VIII-2.

4.7 VISUAL QUALITY

SETTING

College Avenue is a major transportation route through the cities of Oakland and Berkeley. It serves as a major retail and commercial corridor. Commercial areas occur repeatedly along College Avenue in linear arrangements, usually between intersecting arterial streets. These commercial areas are comprised of rows of mostly two- and three-story stucco wood-frame and brick pre-1940 buildings; most have flat roofs. Interspersed among commercial areas along College Avenue are multi-family dwellings of a variety of architectural styles, colors, and ages. These range in height from single-story residences to four-story apartment buildings.

College Avenue does not have a uniform architectural style, scale, or mass. However, most buildings are located at the front lot line and there is a street tree program. Street views consist of: trees of differing varieties, sizes, and ages; buildings of diverse ages, colors, designs, uses, heights and widths; a variety of awnings in commercial areas; overhead utility wires; a constant flow of traffic; and cars parked on both sides of the street.

Claremont Avenue, another main transportation route through Oakland and Berkeley, crosses College Avenue diagonally at a six street intersection. Further west, it also intersects Chabot Road diagonally, forming a triangular block bounded by College Avenue, Chabot Road, and Claremont Avenue, which contains the project site. On the northeast corner of the six-street intersection is a Safeway supermarket with a surface parking lot. In front of Safeway is a Union 76 gas station. Directly across College Avenue at the intersection of College Avenue and 62nd Street is the two-story Bank of America building. This modern structure has a flat roof, and is clad in stone, tile, and glass. On the southwest side of the street is a Shell gas station that is set back from the corner. The rest of the intersection is characterized by mostly older two-story stucco, brick, and wood-frame buildings approximately 25 to 50 feet wide with groundfloor retail shops featuring display windows, advertising signs and some awnings. Second stories contain either office or residential uses.

The project site's College Avenue frontage consists of a two-story, mixed-use building of red brick, stucco, and shingles (Figure 4.7-1). Awnings above each window contain painted business signs. Retail spaces are defined by brick columns. A brick arch, topped with a false front peaked parapet, defines the entrance to the Dreyer's Ice Cream Shop. Views of the building are partially screened by 20- to 25-foot deciduous street trees. To the north and south of the existing facility, varying degrees of landscaping surround two surface parking lots.

There are a variety of mostly older buildings immediately surrounding the project site on the west side of College Avenue. Adjacent and to the north is the United Presbyterian church designed by Julia Morgan in 1917 (Figure 4.7-2). It is a two-story, light-colored stucco building with dark green and rose wood trim and a gabled roof. Its entrance is highlighted by a small gabled belvedere tower and a multi-paned circular window above the double-doored entrance. The church is set back from the street about three to five feet more than surrounding buildings. Mature trees and shrubs surround it, and a small garden forms part of the north boundary of the project site.

The United Presbyterian Church and annex is eligible for the National Register of Historic Places. It is also eligible to become a City Landmark, although it has not yet been so designated by the Oakland Landmarks Preservation Board. The structure received a B+ in the City's Preliminary Historical Architectural Survey taken in 1986. Over 5,000 buildings were inventoried, of which 600 to 700 received a rating of B+ or higher (on a rating scale of A to E). Buildings rated B+ or higher are considered eligible for the National Register.

Across the street to the east is the College Square shopping complex (Figure 4.7-3). This modern one and one-half to two-story brown wood-frame building has a variety of retail establishments with large glass display windows, advertising signs and awnings all competing for attention. Its main entrance is highlighted by a flight of stairs down to an open courtyard and below street-level shops. There is parking below the structure, with access from Harwood Avenue. Immediately to its south is a one-story light green stucco automobile service garage with a flat roof. Approximately half of its facade is a dark green metal roll-up door.

EXISTING DREYER'S AND RETAIL ON COLLEGE AVENUE

FIGURE 4.7-1

SOURCE SQUARE ONE FILM & VIDEO



eip

UNITED PRESBYTERIAN CHURCH

FIGURE 4.7-2

SOURCE: SQUARE ONE FILM & VIDEO



eip

COLLEGE SQUARE

FIGURE 4.7-3

SOURCE: SQUARE ONE FILM & VIDEO



Continuing to the south is the tallest building of the block, a four-story beige stucco older apartment building with two garage doors and a yogurt shop on the ground floor. Immediately adjacent is a one-story restaurant and retail store of beige wood and stucco with Victorian detailing. On the northeast corner of Chabot Road and College Avenue is the newest addition to the block, a one-story building of beige stucco, blue and burgundy accent colors and a gable roof, containing two retail shops. The building steps back and provides a landscaped plaza.

On the southwest corner of this intersection is an older one-story retail building with a video store. Its north facade, a windowless shingle and stone veneer, faces the south side of the project site on Chabot Road.

The area to the west of the project site on Chabot Road contains a concentration of older one- and two-story, wood-frame, single- and multi-family bungalow-style houses with gabled roofs, a style prevalent in the 1920s and 1930s. The two single-family residences located on the project site are of this style; however, they have been vacant for over three years and are somewhat rundown. The residential structures on Chabot Road are consistent in terms of mass, scale, and uniform building setback.

The area surrounding the Dreyer's frontage on Claremont Avenue contains a mix of older apartment, industrial, and commercial buildings. The project site includes the older two-story brick and stucco ice cream factory building with metal roll-up door (for truck receiving) at 6036 Claremont; a newer, light colored three-story warehouse (also with metal roll-up door) at 6040 Claremont; and a two-story brick structure with red tile roof (formerly a residence, legally converted to office use) at 6046 Claremont. Another brick building at 6044 Claremont (behind 6046) is not fully visible from the street. Immediately to the north of the project site is an older stucco, four-unit apartment building. This two-story structure is set back approximately six to eight feet from the sidewalk. This building is owned by Dreyer's but is not part of the project site. Adjacent and south of the project site is Yoshi's nightclub and restaurant. It consists of a group of one- and two-story structures which have been added to the original frontage as the business has expanded.

In general, with the exception of the single-family residences on Chabot Road, the buildings adjacent to and surrounding the project site are of differing masses, scales, and architectural styles.

IMPACTS

Visual impacts of the proposed project would result from its physical configuration (i.e., the size, massing, shape, height, design of the buildings), construction materials, and parking layout. The project would alter the visual character of College Avenue, Claremont Avenue, and Chabot Road. Principal areas of concern regarding visual and design impacts include architectural compatibility of the proposed building with surrounding buildings (especially with existing residences on Chabot Road), and mass and scale relationships between the project and adjacent structures as well as with the pedestrian environment.

The proposed project could be described as an urban, mixed-use development, including an office/retail building and a surface parking lot. The building would be three stories, with the third story stepped back, and would be stucco with a concrete frame. The exterior of the building would be finished in light, warm earthtones (beige and gray), and would have a taupe-colored metal roof. The windows would have white frames; clear glass would be used on the north side of the building, bronze tinted glass would be used on the south or parking lot side of the building.

The plan of the proposed building would be in a modified triangular configuration (see Figure 3-4). It would parallel College Avenue, where the retail entrances would be located, with about 40 feet of retail frontage along Chabot Road.

There are buildings along College and Claremont Avenues of similar scale. There is a recently completed three-story mixed-use building further north on College Avenue at the corner of 63rd Street. It should be noted that the proportions of this building are quite different from those of the proposed project, emphasizing a strong vertical rather than horizontal line. There is also the Alameda-Contra Costa Medical Association Blood Bank northeast of the project site at 6230 Claremont Avenue. This flat-roofed building comprises two sections connected by a glassed-in stairwell. The eastern section of the building contains parking at the ground level with three stories above. The western

EXISTING: VIEW FORM CLAREMONT DAY NURSERY SCHOOL ON COLLEGE AVENUE LOOKING NORTH

FIGURE 4.7-4

SOURCE: SQUARE ONE FILM & VIDEO



PHOTOMONTAGE: VIEW FROM CLAREMONT DAY NURSERY ON COLLEGE AVENUE LOOKING NORTH

FIGURE 4.7-5

SOURCE: SQUARE ONE FILM & VIDEO



eip

EXISTING: VIEW FROM COLLEGE AVENUE AT HARWOOD AVENUE LOOKING SOUTH

FIGURE 4.7-6

SOURCE: SQUARE ONE FILM & VIDEO



PHOTOMONTAGE: VIEW FROM COLLEGE AVENUE
AT HARWOOD AVENUE LOOKING SOUTH

FIGURE 4.7-7

SOURCE SQUARE ONE FILM & VIDEO



section contains two stories. However, the proposed structure would be the largest in scale and bulk on this block of College Avenue. It would be visible from vantage points along this College Avenue block (see Figures 4.7-4 through 4.7-7). The continuous, long facade would differ from the majority of smaller 40- to 50-foot storefronts common to the older buildings immediately surrounding the project. The proposed project would be broken up at the pedestrian level, however, by several retail shops with a variety of related awnings, large display windows with clear glass, and an indentation in the facade containing planting and possibly seating. Existing street trees would remain, softening pedestrians' and motorists' views of the facade from both directions. A motorist's or pedestrian's perception of the structure would vary with changes in observer location.

The long facade of the building would be broken up by progressively terraced or stepped back roof lines and walls. It would appear as several clustered buildings when viewed from across the street. The proposed building would be in keeping with other buildings on the block in terms of height, exterior materials, and color.

The proposed removal of the two surface parking lots on College Avenue and their replacement with the retail/office building would physically strengthen the pedestrian sidewalk environment. The continuous retail facade would be more in keeping with the rest of the College Avenue retail area.

The proposed building would be separated from the United Presbyterian Church along the College Avenue frontage by the existing church courtyard (approximately 40 x 60 feet). The proposed building would be set back 12 feet from the church property line. Together this would diminish the difference in mass of the two structures. Existing shrubbery would remain along the property line, screening views of the proposed building from the existing courtyard. The proposed building would be similar in height and color to the church. Its sloped roof would more closely relate to the church's than the present building's flat roof.

Although the proposed building steps down to two stories at the corner of College Avenue and Chabot Road, its scale is still larger than that of the smaller one-story building on the adjacent corner across Chabot. The contrast would be somewhat reduced, however, by the proposed building's sloped roof at this corner. The building's fenestration, including awnings above the retail display windows, would also serve to reduce its scale.

The proposed building would relate well with the newer one-story building on the adjacent corner across College Avenue. Although this building is somewhat smaller in scale than the proposed building, the two would have similar earthtone exteriors and slanted roofs. Like the building across College Avenue, the articulation of the retail fenestration would reduce the scale of the proposed building.

Portions of the project would be seen from the residential area on Chabot Road (Figures 4.7-8 through 4.7-11). The retail frontage along Chabot Road would be visible from residences and by pedestrians; however, the frontage would be set back ten feet from the property line and would step down to two stories, softening the view of the corner. Vegetation would be planted along the setback to further soften views. The sloped roof along this frontage would relate to the roofs and gables of the many existing single-family houses and smaller bungalows along this street.

The proposed building would be separated from the existing residential neighborhood by a parking lot, creating a spatial buffer between the two land uses. Views of the parking lot would be screened by new and existing vegetation (including a large specimen Oak tree). Parking spaces would be set back 15 feet from the sidewalk. Although views of the lot from the adjacent residence (owned by Dreyer's) would be screened by vegetation (both existing and new), the project would still take away from the residential visual character of Chabot Road.

A small portion of the proposed project's three-story office area would be seen by pedestrians and motorists along Chabot Road. Most of this view, however, would be blocked by existing large trees and two-story homes.

The change in views of the project site from Claremont Avenue could be the most noticeable, as the two-story factory, three-story warehouse, and two-story brick buildings would all be replaced by a surface parking lot. Views of the parking lot from the sidewalk as well as from residences across Claremont Avenue would be buffered by a 15-foot landscaped setback. Trees would be planted between the lot and the apartment building to the north (owned by Dreyer's) and between the lot and Yoshi's property. As shown in Figures 4.7-12 and 4.7-13, the new building would not be visible from Claremont Avenue.

EXISTING: VIEW 1 FROM CHABOT ROAD TOWARDS COLLEGE AVENUE

FIGURE 4.7-8

SOURCE: SQUARE ONE FILM & VIDEO



PHOTOMONTAGE: VIEW 1 FROM CHABOT ROAD TOWARDS COLLEGE AVENUE

FIGURE 4.7-9

SOURCE: SQUARE ONE FILM & VIDEO



eip

**EXISTING: VIEW 2 FROM CHABOT ROAD
TOWARDS COLLEGE AVENUE**

FIGURE 4.7-10

SOURCE: SQUARE ONE FILM & VIDEO



PHOTOMONTAGE: VIEW 2 FROM CHABOT ROAD TOWARDS COLLEGE AVENUE

FIGURE 4.7-11

SOURCE SQUARE ONE FILM & VIDEO



EXISTING: VIEW FROM CLAREMONT AVENUE

FIGURE 4.7-12

SOURCE SQUARE ONE FILM & VIDEO

6046 Claremont, to be removed



PHOTOMONTAGE: VIEW FROM CLAREMONT AVENUE

FIGURE 4.7-13

SOURCE: SQUARE ONE FILM & VIDEO



MITIGATION MEASURES

Mitigation Measures Incorporated by Project Sponsor

- o Incorporation of a stepped-back building design and recessed facade at ground floor reducing apparent size of main building and avoiding one continuous unbroken roofline and long, unbroken, flat exterior walls.
- o Variety in size, location, pattern and fenestration design, reducing uniformity along highly traveled arterial streets.
- o Landscape screening of surface parking areas, including the entrance to the parking lot along Claremont Avenue.
- o Provide landscaping along the existing building north of the parking lot on Claremont Avenue.
- o Softening the hard edges of building with street setbacks and plantings.
- o Use of soft earthtone colored stucco to be compatible with existing buildings on College Avenue and Chabot Road.

Recommended Mitigation Measures

- o Break-up the long, continuous building facade at the ground level along College Avenue with design techniques that emulate existing building patterns, i.e., 25- to 50-foot storefronts, attendant display windows and recessed retail entrances.
- o Step back the proposed buildings' roofline at the corner of College Avenue and Chabot Road to allow for a transition between the proposed building and existing buildings at this intersection.
- o Incorporate more landscaped setbacks at the ground floor along College Avenue to soften building form at streetwall level.
- o To preserve the residential character of Chabot Road, the parking lot should be redesigned to retain both residential structures.

4.8 PUBLIC SERVICES, UTILITIES AND FISCAL IMPACT ANALYSIS

WATER SUPPLY

Setting

The water supply for the proposed project is under the jurisdiction of the East Bay Municipal Utilities District (EBMUD). The District obtains water from the 68.4 billion gallon Pardee Reservoir on the Mokelumne River in the Sierra Nevada.

The project site is served by EBMUD's Claremont Pressure Zone and an 8.1 million gallon underground reservoir located beneath the Oakland hills near Orinda. Water mains adjacent to the site include a 16-inch main under College Avenue and six-inch mains under both Claremont Avenue and Chabot Road.¹

An estimate of the site's existing water demand is outlined in Table 4.8-1. Based on the total amount of existing building area on the project site, broken down by use, the existing demand is 31,784 gallons of water per day.² Most of the water (30,000 gallons) is used for the factory operation.

IMPACTS

Under the proposed project, the amount of water demand would decrease by 25,084 gallons per day (from 31,784 gpd to 6,700 gpd). This represents a decrease of approximately 80%, due to the relocation of the ice cream factory.

Mitigation Measures

No mitigation measures would be necessary.

WASTEWATER

Setting

EBMUD's Special Sewage Treatment District No. 1 was established in 1944 to provide for the treatment and disposal of sanitary and industrial wastewater from the cities of Oakland, Albany, Emeryville, Alameda, Piedmont, Berkeley, and Kensington. The District serves 83 square miles.

TABLE 4.8-1
EXISTING WATER DEMAND ESTIMATE¹

Land Use	Units ²	Demand Factor	Demand
Office	8,649 sf	77 gpd/1,000 sf	666 gpd
Retail	4,350 sf	119 gpd/1,000 sf	518 gpd
Manufacturing	1,725 sf		30,000 ³ gpd
Residential	2 du	100 gpd/capita ⁴	<u>600</u> gpd
Total			31,784 gpd

¹ Assumes all building space on project site is occupied.

² Abbreviations: sf = square feet; gpd = gallons per day; du = dwelling unit.

³ Roger Parks, Project Manager, Steve Wisenbaker Architects and Planners.

⁴ Assumes three people per dwelling unit.

Source: EIP Associates.

The system's primary treatment capacity is 300 million gallons per day (mgd) dry weather flow. Maximum secondary treatment flow is 168 mgd. Current treatment flows average 80 mgd during dry weather, and according to EBMUD representatives, the treatment facilities have sufficient capacity to meet the District's needs until the year 1995.³

The City of Oakland owns and operates the sanitary sewers that convey wastewater to the EBMUD North interceptor pipe for transmission to the EBMUD Water Pollution Control Plant, located near the foot of Wake Avenue. This plant is designed to meet State and federal regulations for wastewater treatment disposal.

Although the City operates separate storm and sanitary sewer systems, the sanitary system's capacity is exceeded during some winter storms due to infiltration of surface runoff into the sanitary collection system. The City of Oakland is currently conducting an Infiltration and Inflow study, and a rehabilitation program is underway to correct this problem.

The sewer laterals from the proposed project would connect to the main sewers on either Chabot Road or Claremont Avenue.

The project site currently generates approximately 31,606 gpd of wastewater.⁴

Impacts

Due to the removal of all factory operations from the site, the proposed project would generate 6,030 gallons of wastewater per day, a decrease in wastewater generation of 25,576 gallons per day. The City of Oakland and EBMUD indicate that local collection and treatment facilities are adequate to handle this flow, and that the project would not, therefore, have any adverse impact on the City of Oakland or EBMUD system.⁵

Mitigation Measures

Prior to establishing a wastewater hookup, the project sponsor would be required to pay a Wastewater Capacity Fee to EBMUD. This one-time charge is based on an estimate of the project's wastewater volume. To set the fee amount, EBMUD uses the District's

Standard Sanitary Wastewater unit charge which takes into consideration such factors as building, square footage, number of employees, and type and number of water fixtures. This fee represents the project's share of capital, operating and maintenance costs for the wastewater treatment facilities.

SOLID WASTE DISPOSAL

Setting

The City of Oakland contracts with the Oakland Scavenger Company for solid waste disposal services. The company's service area includes about 90% of Alameda County, serving a population of approximately 1,000,000. Oakland Scavenger hauls somewhat less than 3,000 tons of refuse per day, five days per week, from within this service area.

The company transports solid waste to the Davis Street Transfer Station in San Leandro, and then to the 1,600-acre Altamont Sanitary Landfill, located east of Livermore. Oakland Scavenger Company owns the landfill site, which has an estimated remaining useful life of 45 years.⁶

Solid waste is presently picked up from a dumpster located behind a gate at the far end of the site's College Avenue parking area. The site's present solid waste production is approximately five dumpsters per week.

Impacts

Based on the National Solid Wastes Management Association's office building generation rate standard of one pound per day per 100 gross square feet, the proposed project would generate an estimated 390 pounds of additional refuse each business day.⁷ The daily figure would represent less than 0.01% of Oakland Scavenger Company's current daily loading, an amount that Oakland Scavenger Company representatives characterize as an insignificant addition to the demand for service.⁸

Mitigation Measures

Oakland Scavenger Company representatives encourage the project sponsor to contact the company for suggestions regarding disposal area design and arrangement.

POLICE SERVICES

Setting

The Oakland Police Department provides 24-hour emergency response and preventive patrol services to the project site. Due to the adoption of Proposition 13, the Police Department experienced a cutback in personnel since 1978, with fewest employees in fiscal year 1981-82 (912 positions). Since that time, the number of positions has steadily increased to the present number of 1,076 (679 sworn and 397 non-sworn positions). This total includes 41 new positions recently approved by the Oakland City Council.

The proposed project site is located in Beat 13 of the Department's District 2. One primary officer is assigned to each of the City's 35 police beats. Tactical or "roving" officers handle emergency calls in the area when the primary officer is unable to respond. Currently, there is a walking officer who patrols the College Avenue commercial area during the 7:00 a.m. to 3:00 p.m. shift.

Impacts

With an increased number of employees and vehicles, the proposed project will have a greater security need. Also, the proposed office building would be more susceptible to night time burglaries than the existing factory. However, it is expected that with the correct building design and door and window hardware, such demand could be served with existing departmental resources.⁹

The Police Department would require a Police Service Design Review so that the proposed project can incorporate environmental crime-deterrents such as appropriate lighting, signage, interior circulation patterns, landscaping, locks, patrolling procedures and electronic protection.¹⁰

Mitigation Measures

To reduce the need for additional police or private security personnnel, the proposed project should employ the deterrents suggested during the Police Service Design Review.

FIRE PROTECTION

Setting

The Oakland Fire Department provides fire protection service to the project area. The fire station nearest to the project site is Engine 19, located at 5776 Miles Avenue. Engine 8, located at 463 51st Street, could also respond to an alarm at the project site. The initial response to a fire would include two engine companies, a truck company, and a fire chief. If located at the station when the alarm is received, Engine 19 could be at the project site within three minutes.¹¹

Impacts

Compliance with the regulations specified in the Oakland Fire Code, the Oakland Building Code, and Title 19 of the California Administrative Code, would ensure that the building incorporates all required fire safety design features.¹²

To assess whether water pressure available through nearby fire hydrants is sufficient to service the site, the fire prevention bureau uses a formula that takes into consideration project construction type, gross building area, occupancy, construction type of adjacent structures, and whether the building has a sprinkler system.¹³ If the water pressure is inadequate, improvements to the water supply pipe system may be necessary.

Mitigation Measures

The project sponsor should consult with EBMUD and with the Fire Department to ensure that the site is served by adequate water pressure. If system improvements are necessary, the project sponsor would be required to cover the expense.

FISCAL IMPACT ANALYSIS

SETTING

The proposed project is subject to taxes levied by Alameda County and by the City of Oakland. These include the property tax collected by the county, and a business license tax, a parking stall fee, and a commercial rental tax, payable to the city. In addition, the city receives a portion of the sales tax collected by the state Board of Equalization.

The amount of property tax revenue available to the city is a function of the assessed value (AV) of the site, the tax rate, and the allocation of revenue among public agencies. Excluding that portion which is dedicated to bond debt service, the property tax rate is 1% per year. Table 4.8-2 shows the allocation of this 1% among the public agencies that have jurisdiction in the area that includes the project site. Under Proposition 13, assessed valuation can increase at a maximum rate of 2% per year. Reassessment is triggered by a change of ownership or by new construction.

The project site consists of five parcels. The site's current assessed value totals nearly \$7.9 million as shown in Table 4.8-3. In fiscal year 1986-87, this generated approximately \$79,000 in property tax revenue of which Alameda County received \$24,400 and the City of Oakland received approximately \$27,500.

IMPACT

City of Oakland¹⁴

Property Tax Revenue. Property tax revenue will change based upon the net market value of improvements added to the property by the proposed project. Market value of these improvements, as approximated by construction cost estimates, would be about \$4.9 million. The project would also remove property currently assessed at \$5,635,820. Thus, there would be a decrease in property value created by the proposed project of \$735,820. This would represent a decrease in revenue of \$7,360 based upon the 1% property tax rate. The distribution of the 1% property tax within the project's Tax Rate Area has already been given in Table 4.8-2. The City of Oakland's allocation would be reduced by approximately \$2,560 due to the reduction in property value.

Business License Tax. The City of Oakland collects a business license tax levied at a rate of forty-four cents per \$1000 of gross payroll. The proposed project will employ 64 additional employees. The project sponsor's business license tax base will increase by the amount of these employees' salaries. If average annual salaries are conservatively estimated to be \$25,000 per year, the City would collect about \$700 per year in tax revenue from this source.

TABLE 4.8-2
PROPERTY TAX ALLOCATION
TAX RATE AREA 17-003

<u>Agency</u>	<u>Tax Rate</u>
Alameda County General Fund	0.30861378
City of Oakland General Fund	0.34845759
Peralta Community College	0.02641596
Oakland Unified School District	0.18666903
County Superintendent of Schools	0.00338389
County Flood Control	0.00184983
Flood Zone 12	0.02412859
Bay Area Air Quality Management	0.00185120
Mosquito Abatement	0.00123412
AC Transit	0.04629628
BART	0.00543624
East Bay Regional Parks	0.02599471
EBMUD	0.01449661
EBMUD District 1	<u>0.00517211</u>
Total	0.99999994

Source: Alameda County Auditor-Controller's Office, Tax Analysis Division.

TABLE 4.8-3
PROJECT SITE'S 1986/87 ASSESSED VALUE

Parcel	Address	Parcel Number (APN)	Assessed Valuation, 1986-87			
			Land	Improvements	Other ¹	Total
5901	College	14-1268-9-1	\$ 933,062	\$1,019,684	\$3,905,194	\$5,857,940
5965	Chabot	14-1268-11-1	203,361	36,339	400	240,100
5957	Chabot	14-1268-12	165,400	23,300	500	189,200
6036	Claremont	14-1268-36	83,967	346,239	0	430,206
6046	Claremont	14-1268-38	154,836	304,164	0	459,000
Total			\$1,540,626	\$1,729,726	\$3,906,094	\$7,176,446

¹"Other" includes machinery and equipment, business personal property, and household personal property.

Source: County of Alameda Assessor's records.

Retail Sales Tax. Sales tax associated with the project would be generated by retail and restaurant operations of the project and by employee purchases. This analysis uses the following annual taxable sales factors per square foot: \$87.00 for retail space¹⁵ and \$95.85 for restaurant space.¹⁶ It uses a taxable sales factor of \$750 per employee per year.¹⁷ The City of Oakland would receive 1% of the 6% State sales tax. The proposed project would generate a net increase of approximately \$5,800 annually in retail sales tax for the City of Oakland.

Commercial Rental Tax. The City of Oakland collects a commercial rental tax at a rate of \$13.95 per \$1,000 of gross rental income. Assuming a conservative average market rate of retail space in the Rockridge area of \$2.00 per square foot, the proposed project would generate a net annual increase in commercial tax revenue of approximately \$1,900.

Costs. Police and fire services are the only public services representing significant potential capital or operating costs for the City of Oakland. Revenues for these services are from the General Fund and are not based directly upon services delivered or fees that are structured to recoup costs. It is not anticipated that additional resources would be required to serve the proposed project. As a result, the project would not represent increased public service costs to the City of Oakland.

The project sponsor would be billed on a fee-for-service basis for public utilities provided by Pacific Gas & Electric Company, the East Bay Municipal Utilities District, and the Oakland Scavenger Company. In addition, as discussed above, the project sponsor would be required to pay connection charges for gas and electricity, water service, and wastewater treatment and would be responsible for the cost of any system improvements necessary for adequate water services. The net fiscal impact on these agencies would be zero.

Cost/Revenue Balance. As shown in Table 4.8-4, the proposed project would generate a net gain in revenue annually of approximately \$5,840 for the City of Oakland.

TABLE 4.8-4
NET CHANGE IN REVENUES AND COSTS TO OAKLAND
AS A RESULT OF THE PROPOSED PROJECT

<u>Revenue/Cost</u>	<u>Net Change</u>
Property Tax	-2,560
Business License Tax	+700
Retail Sales Tax	+5,800
Commercial Rental Tax	+1,900
Police Services	0
Fire Services	<u>0</u>
Total	\$ 5,840

MITIGATION MEASURES

Because the project would generate a net increase in revenue, no mitigation measures would be necessary.

¹ Bill McGowan, Associate Civil Engineer, East Bay Municipal Utilities District, personal communication, June 11, 1987.

² Demand of buildings currently occupied is 30,667 gpd.

³ John Griffin, Wastewater Control Representative, EBMUD, personal communication, June 10, 1987.

⁴ Assumes 100% of water generated by factory use becomes wastewater and 90% of water generated by all other uses.

⁵ John Griffin, op. cit.

- ⁶ Mike Crosetti, District Landfill Manager, Oakland Scavenger Company, personal communication, June 10, 1987.
- ⁷ National Solid Wastes Management Association. Technical Bulletin #85-6, Basic Data: Solid Waste Amounts, Composition and Management Systems. Washington, DC: October 1985.
- ⁸ Mike Crosetti, op. cit.
- ⁹ Officer Curt Wengeler, Commercial Security Officer, Oakland Police Department, personal communication, June 11, 1987 and February 16, 1989.
- ¹⁰ Ibid.
- ¹¹ Jerry Blueford, Fire Marshall, Oakland Fire Department, personal communication, June 12, 1987.
- ¹² Ibid.
- ¹³ Jim Art, Fire Protection Engineer, Oakland Fire Department, personal communication, June 19, 1987.
- ¹⁴ Information on local business taxes was provided by Ponce Flores, Auditor, Business Tax Audit Division of the Finance Department, City of Oakland.
- ¹⁵ This number is an average of median annual sales/sq.ft. based on a selection of tenant types characteristic of the Rockridge Area, from: Dollars and Cents of Shopping Centers, Urban Land Institute, 1984. Neighborhood Shopping Centers pp. 292-296. 1984 dollars adjusted to current (1988) dollars from change in CPI-U for San Francisco/Oakland/San Jose metropolitan area (15.48% increase).
- ¹⁶ Urban Land Institute, Dollars and Cents of Shopping Areas, 1984. Rate used for "Restaurant with Liquor," p. 292.
- ¹⁷ This figure estimated on the basis of average employee purchases of \$4 per day (for 250 days per year) assuming 75% of the purchases would take place in Oakland.

4.9 ENERGY

SETTING

Pacific Gas and Electric Company (PG&E) supplies natural gas and electricity to customers in Oakland. PG&E generates electrical energy from various sources including oil, natural gas, wind, cogeneration, solid waste, hydroelectric, geothermal and nuclear power.¹

New buildings in California are required to conform to stringent energy conservation standards specified in Title 24 of the California Administrative Code. These articles of the Code require inclusion of state-of-the-art energy conservation features in building design and construction. The state allows developers to comply with the standards via the component performance standards method, which requires that a project sponsor do one of the following: incorporate into the building a set of specific energy-conserving design features, use non-depletable energy resources, or demonstrate that the building would comply with a specified "energy budget," that is, consume no more than a certain quantity of energy that is specified for different types of building uses. Documentation showing compliance with standards is submitted with the application for the building permit and the standards would be enforced by the city of Oakland's Building Department.

Existing Operational Energy

A mixture of land uses currently exists on the project site. Table 4.9-1 estimates the maximum allowable annual operational energy if those structures were to be built today in accordance with Title 24 regulations. Natural gas and electricity requirements have been converted to at-source Btus in order to account for losses in energy that occur during generation, transmission and distribution of the various forms of energy.² As calculated, the maximum allowable energy consumption for space conditioning under Title 24 would be about 2.9 billion Btu, the equivalent of about 520 barrels of oil.

Existing Transportation Energy

Traffic generated by the existing land uses causes off-site energy consumption. Estimated consumption of gasoline from existing traffic generation is 36,143 gallons per year.³ Converted to a common thermal energy unit, this gasoline use would equal about five billion Btu per year, the energy equivalent of 905 barrels of oil. The existing use is based upon the mix of highway vehicles in California in 1990.

TABLE 4.9-1
DREYER'S EXISTING ANNUAL PROJECT ENERGY USE

Land Use	Developed Space	Title 24 Allowance	Natural Gas ¹ (Therms)	Electricity ² (kWh)	Peak Electrical Load (kWh)	Total Operating Energy (million Btu)
PROJECT OPERATION						
Residential	2 DUs plus	15,100 Btu/sq.ft. 20,800 Btu/DU (water heating)	80 42	7,000	30	100 4
Dreyer's Office	8,649 sq.ft.	126,000 Btu/sq.ft.	1,000	139,000	100	1,500
Retail	4,350 sq.ft.	200,000 Btu/sq.ft.	1,000	98,000	0	1,100
Manufacturing	1,725 sq.ft.	104,000 Btu/sq.ft.	0	24,000	0	200
Subtotal Operating Energy			2,122	268,000	130	2,904
TRANSPORTATION						
36,143 gallons of gasoline and diesel fuel consumed per year						<u>5,060</u>
PROJECT TOTAL						7,964

¹ Assumes 10% of the total Btus would be generated with natural gas.

² Assumes 90% of the total Btus would be generated with electricity.

IMPACTS

The primary project impact on energy resources would be the consumption of nonrenewable energy during project construction and operation. In addition, project-generated motor vehicle traffic would consume gasoline, oil and diesel fuel during transportation of residents and workers to and from the project site.

Construction

Demolition of existing buildings would require unknown amounts of energy. The energy for demolition and debris removal is not expected to be significant. The total estimated energy usage for construction of the proposed project would be 10.6 billion Btus.³ By annualizing this estimate over the projected life of the project, the annual energy usage for the project's construction would be 220 million Btus or about 39 barrels of oil. This estimates includes gasoline, diesel fuel and electricity for fabrication and transportation of building materials, worker transportation, site development and building construction.⁴

Operation

Table 4.9-2 estimates the project's maximum allowable annual operational energy in accordance with Title 24 regulations. Annual energy consumption of the project would be about 11.2 billion Btu, the equivalent of about 2,000 barrels of oil. This would be an increase in annual consumption of about eight billion Btu per year. PG&E foresees no difficulty in supplying the project with sufficient natural gas and electricity from existing and planned sources.⁵

Transportation

Project-related automobile transportation would cause additional, off-site energy consumption. For the project trip generation described in Section 4.4, Traffic, Circulation and Parking, project-related trips would require about 98,549 gallons of gasoline per year. Converted, this gasoline use would equal about 13.8 billion Btu per year, the energy equivalent of 2,446 barrels of oil. The project use is based upon the mix of highway vehicles in California in 1990.⁶

TABLE 4.9-2
DREYER'S PROPOSED ANNUAL PROJECT ENERGY USE

<u>Land Use</u>	<u>Developed Space</u>	<u>Title 24 Allowance</u>	<u>Natural Gas¹ (Therms)</u>	<u>Electricity² (kWh)</u>	<u>Peak Electrical Load (kWh)</u>	<u>Total Operating Energy (million Btu)</u>
PROJECT OPERATION						
Dreyer's Office	49,109 sq.ft.	126,000 Btu/sq.ft.	6,000	789,000	300	8,700
Retail	9,999 sq.ft.	200,000 Btu/sq.ft.	2,000	226,000	100	2,500
Subtotal Operating Energy			8,000	1,015,000	400	11,200
TRANSPORTATION						
98,549 gallons of gasoline and diesel fuel consumed per year						13,797
CONSTRUCTION						
	Total Construction Energy (million Btu)		Annualized Construction Energy (million Btu)			
Project	9,800		200			
On-site Improvements	800		20			
Subtotal Construction Energy		10,600	220			
PROJECT TOTAL						25,217

¹ Assumes 10% of the total Btus would be generated with natural gas.

² Assumes 90% of the total Btus would be generated with electricity.

An additional undetermined amount of transportation-related energy consumption would arise from project-related use of local transit systems. As traffic mitigation measures specified in Section 4.4 are implemented, transit energy use would increase but would be more than offset by decreases in the energy consumption of private automobiles.

MITIGATION MEASURES

Statutory Requirements

The project sponsor is required by law to demonstrate compliance with the stringent standards of the California Administrative Code, Title 24, prior to issuance of a building permit. New buildings also must comply with strict requirements of the Uniform Building Code regarding insulation, glazing, weather sealing, choice of building materials and water and energy conserving plumbing fixtures. A number of design features that would aid the project in achieving compliance with Title 24 standards are listed below. Features not specifically required by Title 24 and not included in the project proposal could be included as part of the project to further reduce energy consumption. However, these additional mitigation measures are not required by law.

Architectural:

- o Project design and layout could be used to maximize use of natural lighting and ventilation.
- o Reduction of window surfaces on the north face could be used to minimize heat loss.⁷
- o Windows enclosing air conditioned space could be operable and local climate controls provided so occupants can open the window and turn off the air conditioner when weather permits.
- o Minimization of exterior surface area through the architectural design would reduce area of heat loss through conduction.
- o Landscaping design could enhance passive solar energy efficiency and reduce the wind on the surface of the buildings.
- o Building overhangs or other horizontal sun shades could shade the south faces of the buildings to reduce cooling loads while maintaining glass area that would provide significant daylight contribution for reducing artificial lighting demands.
- o Windows facing east and west could be either recessed or vertical sun shades provided to facilitate sun shading while maintaining a glass area that provides a significant daylight contribution for reducing artificial lighting demands.

- o Windows facing south could utilize horizontal shading devices or reflective glass to facilitate sun shading while maintaining sufficient natural light.
- o Heat-reflecting glazing on windows that are not shaded would reduce unwanted heating gain in summer.

Electrical:

- o Project design should incorporate the use of energy-efficient lighting, such as high intensity discharge or fluorescent lamps, when feasible with respect to project aesthetics.
- o Use of light reflective materials to finish interior walls and ceilings thereby potentially reducing electrical demand.
- o Use miniature fluorescent lamps to replace incandescent lamps in fixtures where possible.
- o Use energy efficient high pressure sodium lighting for roadways, walkways, etc., with time-clock or photocell control.

Solar Energy:

Encourage the use of solar energy technology with relation to:

- o Water heating.
- o Natural ventilation through passive solar energy convection techniques.

¹PG&E Annual Report, San Francisco, 1981.

²The term "at-source" means that adjustments have been made in the calculation of the thermal energy equivalent (Btu) to account for losses in energy that occur during generation, transmission and distribution of electrical energy. See Apostolos, J.A., W.R. Shoemaker and E.C. Shirley, Energy and Transportation System, California Department of Transportation, Sacramento, California, Project #20-7, Task 8, 1978.

³The British thermal unit (Btu) is the quantity of heat required to raise the temperature of one pound of water one degree fahrenheit at sea level.

⁴Hannon, B. et al., Energy and Labor in the Construction Sector, "Science" 202:837-847.

⁵Fel Aug, PG&E Planning District Manager, telephone conversation, August 4, 1988.

⁶The California Air Resources Board's (CARB's) URBEMIS#1 computer model was used for estimating vehicular fuel use.

⁷Edward Mazria, The Passive Solar Energy Book, Rodale Press, Emmaus, PA, 1979.

Additional reference material used:

Bay Area Air Quality Management District, Air Quality and Urban Development: Guidelines for Assessing Impacts of Projects and Plans, San Francisco, November, 1985.

Rau and Wooten, Environmental Impact Analysis Handbook, McGraw Hill, 1980.

5 GROWTH-INDUCING EFFECTS

Section 15126(g) of the CEQA Guidelines requires a discussion of the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The proposed project does not foster significant population or housing growth.

The proposed project would induce a small amount of local economic growth, but only redistribute a small amount of economic activity within the region. Direct employment growth would be an addition of 67 new employees, an increase of about 0.04% over projected employment for Oakland in 1987.¹

The increase in direct employment would have an indirect employment effect that would stimulate additional economic activity of sufficient magnitude to support another four employees throughout the Bay Area Region.² As some of the additional employment would be transferred workers from Dreyer's Lafayette offices, the employment growth would not represent a net regional gain, but it would be a gain for the City of Oakland. The associated indirect employment could also be assumed to move closer to the Oakland area, although its precise location within the region is not predictable. Increased local spending associated with the increase in direct, on-site employment would buttress the neighborhood economy in the vicinity of the proposed project.

The increase in approximately 67 employees on the site could result in increased housing demand. However, as most of the new employees would be relocated from the Lafayette office, it is not likely that they would relocate their homes to Oakland, especially

considering the good access to the site via BART and freeways. Thus, demand for housing in Oakland as a result of the proposed project is not expected to be significant.

¹ ABAG, Projections '85, interpolated between 1985 and 1990.

² ABAG, 1982 Input-Output Model and Economic Multipliers for the San Francisco Region, June 1986.

6 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

No unavoidable significant environmental impacts resulting from the proposed project have been identified. Mitigation measures for potential impacts are included in each environmental impact section.

7 ALTERNATIVES TO THE PROPOSED PROJECT

7.1 ALTERNATIVE ONE: NO-BUILD

Under this alternative, the proposed project would not be built. No buildings would be removed; existing factory, office, and retail operations would continue. The two unoccupied single-family residences on Chabot Road would remain on the site. The No-Build Alternative would have no land use, transportation, noise, air quality, visual, geologic, hydrologic, public services, energy or construction impacts.

This alternative has been rejected by the project sponsor, as it would not meet the objectives of creating a headquarters for the corporation in one location and maximizing efficiency of the company's operation.

7.2 MITIGATED ALTERNATIVE: RETAIN ONE EXISTING RESIDENCE, TANDEM PARKING, REVISED COLLEGE AVENUE GROUND FLOOR FRONTAGE

This alternative would be similar to the proposed project, with 164 employees, 49,000 square feet of office space and 10,000 square feet retail/restaurant. The difference is that one residential lot would be retained, and the on-site parking supply would be 134 spaces with 12 spaces designated as tandem (see Figure 7-1) spaces rather than 132, as in the proposed project. The tandem spaces would be used by employees arriving at the site early in the morning and staying all day.

The traffic impacts associated with this alternative would be the same as the proposed project. The Oakland City Traffic Engineering Department would accept a tandem parking condition if specific Dreyer's administrative departments were assigned tandem spaces (as opposed to a firm-wide tandem program which is regarded as difficult to implement and manage).¹ The difference of two spaces is within the rounding error of the analysis and is insignificant. Therefore, no mitigation is warranted.

By retaining one residence this alternative would have less of an impact on the residential character of Chabot Road and land use conflicts could be reduced. The location of the retained residence coincides with the point across the street where the residential block face begins. Visually, this alternative would also have less of an impact than the proposed project as the one residence would screen views of portions of the building and parking lot from Chabot Road. The College Avenue frontage would be further broken up with recessed retail entrances and more landscaped setbacks, and the roofline at the corner of College Avenue and Chabot Road would be stepped back to soften the corner's appearance (see Figure 7-1).

A solid, six-foot wood or masonry fence would be constructed along the property line between the project parking lot and adjacent buildings in order to reduce the noise generated by parking lot activity. Other impacts would be the same as for the proposed project.

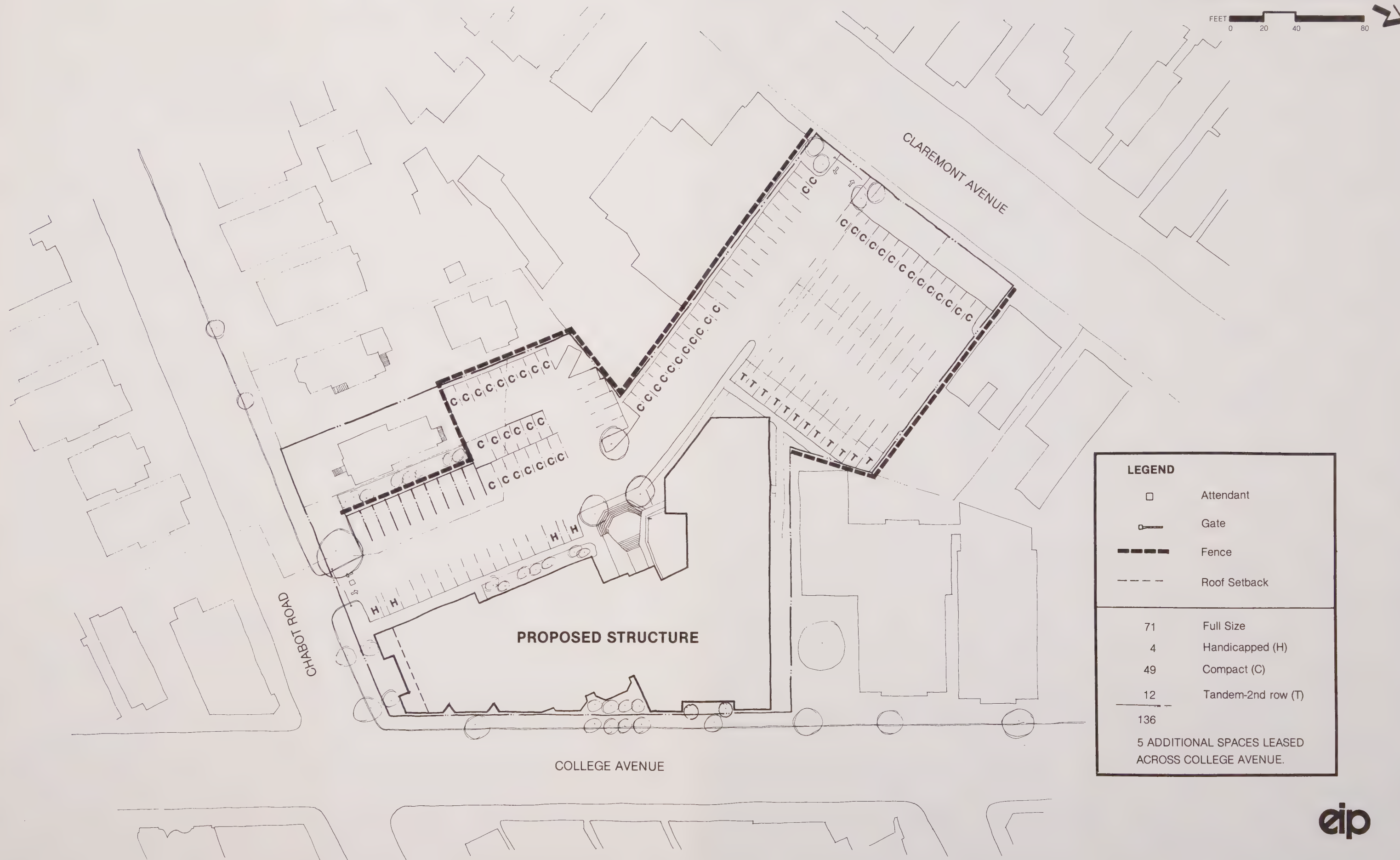
This alternative was rejected by the project sponsor because it would not meet the objectives of the project. The residence is currently vacant, delapidated and regarded by Dreyer's as an incompatible land use due to its close proximity to the parking lot. Moreover, it is important to Dreyer's to provide parking for retail uses as close to College Avenue as possible. Retaining the vacant house would render the site less attractive for parking and could increase the congestion on College Avenue by retail users of the project site wanting to park on College Avenue. Existing on-street parking is not likely to improve with this alternative.

¹I. Jeeva, City of Oakland Transportation Engineering, Meeting, January 8, 1989.

PARKING PLAN FOR ALTERNATIVE II

FIGURE 7-1

SOURCE: THOMSON ENGINEERS / STEVE WISENBAKER ARCHITECTS



8 EIR AUTHORS AND PERSONS CONSULTED

8.1 EIR AUTHORS

City Planning Department
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Oakland, CA 94612
(415) 273-3911

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150 Spear Street, Suite 1500
San Francisco, CA 94105
(415) 546-0600

Principal-in-Charge: Stu During, Project Manager

PROJECT TEAM

Simone DeSorcy, Planning Analyst, Assistant Project Manager
George Burwasser, Geologist
Andrew Leahy, Hydrologist
Geoff Hornek, Air Quality Analyst
Kathy Mortimer-Garcia, Planning Analyst
Bill Wiseman, Planning Analyst
Alan Lyons, Production Coordinator
Janet Fong, Graphics Coordinator

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Hartmut Gerdes

8.2 PROJECT SPONSOR

Dreyer's Grand Ice Cream
5929 College Avenue
Oakland, CA 94618

Steve Wisenbaker AIA, Architects and Planners
300 Tamal Plaza, Suite 200
Corte Madera, CA 94925
Project Manager: Roger Parks

8.3 PERSONS CONSULTED

Willie Yee, City Planning Department, City of Oakland
Charlie Bryant, City Planning Department, City of Oakland
I. Jeeva, Traffic Engineering and Parking Division, City of Oakland
Ronald Bajuniemi, Peter Kaldveer and Associates, Inc.
Clarence Gillmore, Public Works Dept., City of Oakland
Andrew Otsuka, Alameda County Flood Control and Water Conservation District
John Griffin, EBMUD Wastewater Control Representative
Curt Wengeler, Commercial Security Officer, Oakland Police Dept.
Jerry Blueford, Fire Marshall, Oakland Fire Dept.
Jim Art, Fire Protection Engineer, Oakland Fire Dept.
Ponce Flores, Auditor, Business Tax Audit Division, City of Oakland Finance Dept.
Fel Aug, Planning District Manager, PG&E
Bill McGowan, EBMUD Facilities Planning
Mike Crosetti, Oakland Scavenger Company

APPENDIX A
INITIAL STUDY

CITY OF OAKLAND



CITY HALL • ONE CITY HALL PLAZA • OAKLAND, CALIFORNIA 94612

Planning Department

TTY 839-6451

April 3, 1986

Dreyer's Grand Ice Cream
5929 College Avenue
Oakland, CA 94618
Attn: Paul Woodland, Vice President

RE: Results of Initial Study

Dear Mr. Woodland:

The City Planning Department has completed the initial environmental study for your proposed expansion at 5929 College Avenue and parking garage on Claremont Avenue (see attached). Based upon the results of the initial study, it has been determined that your project may have a significant effect on the environment and that an Environmental Impact Report (EIR) must be prepared. The California Environmental Quality Act Guidelines allows for the preparation of a focused EIR, which is limited to examining the potential significant effects of a project. The EIR should address the following environmental issues:

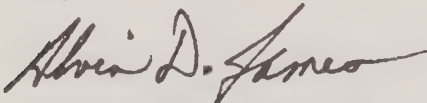
1. Traffic, Circulation, and Parking - The EIR must describe the neighborhood's existing circulation patterns, traffic and parking conditions. The report should then examine future conditions, both with and without the project. Special attention should be given to the traffic impacts of truck loading on Chabot Road and the parking garage on Claremont Avenue.
2. Visual Impacts - The EIR must include photo montages to accurately depict the project's relationship to existing residential and commercial development in the area in terms of scale, height, and bulk. The montages should be taken from key nearby vantage points, and should superimpose the actual building elevation into the background photograph, instead of merely the structure's profile.
3. Noise - A comprehensive noise study should be prepared which specifically includes analyses of truck noise on Chabot Road, as well as traffic generated by the project and the garage on Claremont Avenue.
4. Air Quality - The local and regional air quality impacts of the project should be analyzed.
5. Land Use and Relationship to City Policies - A thorough discussion of all applicable zoning and general plan policies must be included for the area. Displacement of residents and businesses by the project should be discussed.

6. Geology and Hydrology - A complete soils report, including information derived from test borings, is needed. The presence of subsurface springs and aquifers should be verified. The level of the ground water table must be established. Will the project result in the diversion of increased subsurface flows to adjacent properties? Will increased surface runoff present any problems? All these issues should be addressed in the EIR.
7. Energy - The EIR should quantify the amount of increased energy usage due to the project.
8. Public Services and Facilities - What effect will the project have on all public services and facilities? The EIR should look at if existing levels of police, fire, sewer, and waste disposal services are sufficient to serve the facility. Are the revenues derived by the City from this project sufficient to cover the added costs of public services?

In addition to the above items, the EIR must also include all other State required sections, including alternatives to the project, growth inducing impacts, and unavoidable adverse impacts. We understand that you intend to retain Environmental Impact Planning Corporation (EIP) to prepare the EIR. They are acceptable to the City Planning Department. Upon receipt of a complete and adequate report, we will release the Draft EIR for a 45 day public review period. A public hearing on the Draft EIR and your zoning application will be held near the end of the review period. A Final EIR must then be prepared that contains responses to all the comments received, and made at the public hearing, on the Draft EIR.

We look forward to working with EIP in preparing an EIR that accurately describes the potential impact of your expansion, and provides the neighborhood and the City's decision makers needed information to evaluate the project. Please contact Willie Yee, Jr., Associate Planner, at 273-3911 if you have any questions regarding this letter or the EIR process in general.

Very truly yours,



ALVIN D. JAMES
Acting Director of City Planning

ADJ:WY:crr

cc: EIP, Linda Peirce ✓
Nina Robinson
Barbara Anderson
Steve Wisenbacker
Anne Haden, City Attorney

INITIAL STUDY
 California Environmental Quality Act

I. DESCRIPTION OF THE PROJECT See attachment to Initial Study

II. DESCRIPTION OF THE ENVIRONMENTAL SETTING See attachment to Initial Study

III. <u>ENVIRONMENTAL EFFECTS</u>	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>Source or Explanation</u>
<u>Geophysical.</u> Will the proposal result in:				
1. Unstable earth conditions, including erosion or slides, or changes in geologic substructures either on or off the site?		X		
2. Major changes in topography or ground surface relief features?	X			See Attachment
3. Construction on loose fill or other unstable land which might be subject to slides or liquefaction during an earthquake?		X		
4. Construction within one quarter mile of an earthquake fault?			X	
5. Substantial depletion of a nonrenewable natural resource or inhibition of its extraction?			X	
<u>Air and Water.</u> Will the project result in:				
6. Substantial air emissions, deterioration of ambient air quality or the creation of objectionable odors?		X		See Attachment
7. Substantial degradation of water quality?			X	
8. Changed drainage patterns or increased rates or quantities of surface water runoff?	X			See Attachment
9. Interception of an aquifer by cuts or excavations?		X		See Attachment
<u>Biotic.</u> Will the project:				
10. Reduce the quantity of fish and wildlife in the project vicinity, interfere with migratory or other natural movement patterns, degrade existing habitats or require extensive vegetation removal?			X	
11. Reduce the numbers of any rare or endangered species of plants or animals?			X	
<u>Land Use and Socio-Economic Factors.</u> Will the project:				
12. Conflict with approved plans for the area or the Oakland Comprehensive Plan?	X			See Attachment
13. Carry the risk of an explosion or the release of hazardous substances, including oil, pesticides, chemicals or radiation?			X	
14. Require relocation of residents and/or businesses?	X			See Attachment
15. Cause a substantial alteration in neighborhood land use, density or character?	X			See Attachment
16. Generate substantially increased vehicular movement or burden existing streets or parking facilities?	X			See Attachment
17. Elicit substantial public controversy or opposition?	X			See Attachment
18. Have a substantial impact on existing transportation systems or circulation patterns?	X			See Attachment
19. Result in a substantial increase of the ambient noise levels for adjoining areas?		X		See Attachment
20. Impose a burden on public services or facilities including fire, solid waste disposal, police, schools or parks?		X		See Attachment
21. Impose a burden on existing utilities including electricity, gas, water, and sewers?		X		See Attachment
22. Destroy, deface or alter a structure, object, natural feature or site of historic, architectural, archeological or aesthetic significance?		X		See Attachment
23. Involve an increase of 100 or more feet in the height of any structure over any previously existing adjacent structure?			X	

Energy: Will the project:

Yes Maybe No Source or
Explanation

24. Use or encourage use of substantial quantities
of fuel or energy?

X See Attachment

IV. MANDATORY FINDINGS OR SIGNIFICANCE (EIR required if answer to any of the following
questions is "yes" or "maybe".)

Yes Maybe No

a. Does the project have the potential to degrade the
quality of the environment, substantially reduce
the habitat of a fish or wildlife species, cause a
fish or wildlife population to drop below self
sustaining levels, threaten to eliminate a plant
or animal community, reduce the number or restrict
the range of a rare or endangered plant or animal
or eliminate important examples of the major
periods of California history or prehistory?

X

b. Does the project have the potential to achieve short-
term, to the disadvantage of long-term, environmen-
tal goals? (A short-term impact on the environment
is one which occurs in a relatively brief, definitive
period of time while long-term impacts will endure
well into the future.)

X

c. Does the project have impacts which are individually
limited, but cumulatively considerable? (A project
may impact on two or more separate resources where
the impact on each resource is relatively small, but
where the effect of the total of those impacts on
the environment is significant.)

X

d. Does the project have environmental effects which
will cause substantial adverse effects on human
beings, either directly or indirectly?

X

If any "yes" or "maybe" answers are marked, describe the specific nature of the
environmental effects involved and their relationship to the project. (Use an attached
sheet if necessary.)

V. DETERMINATION:

On the basis of this initial evaluation:

☐ I find the proposed project WILL NOT have a significant effect on the
environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect
on the environment, there will not be a significant effect in this case
because the mitigation measures described on an attached sheet have been
added to the project. A NEGATIVE DECLARATION will be prepared.

☒ I find the proposed project MAY have a significant effect on the environ-
ment, and an ENVIRONMENTAL IMPACT REPORT is required.

Name

Date

Title

ASSOCIATE PLANNER

April 3, 1986

Attachment to Initial Study

- I. The project includes the following components: (1) a new three story office structure containing 43,836 square feet of floor area (including basement) fronting on College Avenue; (2) a new one story research and development building containing 4,940 square feet located off of Chabot Road; (3) conversion of existing two story structure at 5939 Chabot Road (2,200 square feet); (4) expanded truck loading area with new driveway on Chabot Road; (5) a new three story parking structure containing 136 spaces (including roof and basement parking; and (6) removal of four wood framed residential-type structures on Chabot Road and three masonry structures on Claremont Avenue.
- II. Site is adjacent to the north on College Avenue by the United Presbyterian Church; residential uses (one and two family) on Chabot Road; commercial and residential uses abut the site on Claremont Avenue.

Items Marked "Yes"

2. The project will require 4,583 cubic yards of excavation which will be transported from the project site.
8. The project will result in the replacement of certain open, undeveloped, areas with buildings and paved surfaces. This will increase the rate of surface runoff and decrease ground water percolation quantities.
12. The project proposes to located non-residential uses in the R-35 Special One Family Residential Zone. This conflicts with the City's General Plan policies related to neighborhood preservation.
14. Numerous residents and several businesses will be displaced by the proposed project.
15. Expansion of the existing manufacturing and commercial activity will significantly alter the residential character of Chabot Road. Traffic generated by the proposal will also detract from the residential feeling of this street. Night lighting may disturb nearby residents.
- 16 and 18. The proposed expansion of the Dreyer's facility will accommodate new employees. A complete traffic study should be prepared that identifies the number of trips that will be generated by these employees and the effect of this additional traffic on the area's street system. It has been indicated that the expansion will allow Dreyer's to relocate its administrative function from Lafayette. The traffic study should pay particular attention to the route these employees will take to and from work. A survey of where those employees live should be included in the study. The traffic study should examine area-wide traffic patterns with and without the project, and should take into account new development in the College Avenue area. The impacts of the truck loading area of a Chabot Road and the parking garage on Claremont Avenue are both issues of concern.
17. The Rockridge Community Planning Council and other neighborhood residents oppose this project.

Items marked "maybe"

1. The geologic characteristics of the site are unknown at the time. A geotechnical investigation should be prepared.
6. Increased traffic generated by this proposal may reduce air quality in the area.
9. Residents in the area contend that underground springs are present near the site, and fear that excavation for the building's basement and foundation will divert ground water to adjacent properties. This issue should be examined in the geotechnical report.
19. Increased traffic and truck access from Chabot Road may increase the ambient noise level in the area.
- 20 It is unknown at this time if existing public services and utilities can
and accommodate the proposed expansion.
21
22. A survey should be conducted to determine if the structures slated for removal are architecturally or historically significant.
24. The new facility will generate an increased energy demand because of heating, cooling, and the facilities' operational requirements. Employees will also use energy commuting to and from work.

APPENDIX B

TRAFFIC

Figure B-1	Variation in Existing Daily Traffic on Claremont and College Avenues.
Table B-1	Level-of-Service Interpretation
Table B-2	Summary of Service Vehicles at Dreyer's Oakland Facilities
Table B-3	Dreyer's Employee Survey Summary
Table B-4	Employee and Visitor Trip Generation Summary -- Table B-4 was developed from surveys at Dreyer's office, retail and factory facilities, and supported by information from ITE.
Table B-5	Modal Split Summary -- Table B-5 was developed from surveys at Dreyer's office, retail and factory facilities; 1980 census journey-to-work data, and the City's Rockridge survey.
Table B-6	Visitor Trip Rates, Restaurant, Office, Retail -- Developed from survey data, ITE trip generation and Oakland Central District Plan.
Figure B-2	Routes to Work -- Developed from employee survey data at Oakland facility.
Figure B-3	Routes Home - Developed from employee survey data at Oakland facility.

VARIATION IN EXISTING DAILY TRAFFIC ON CLAREMONT AND COLLEGE AVENUES

FIGURE B-1

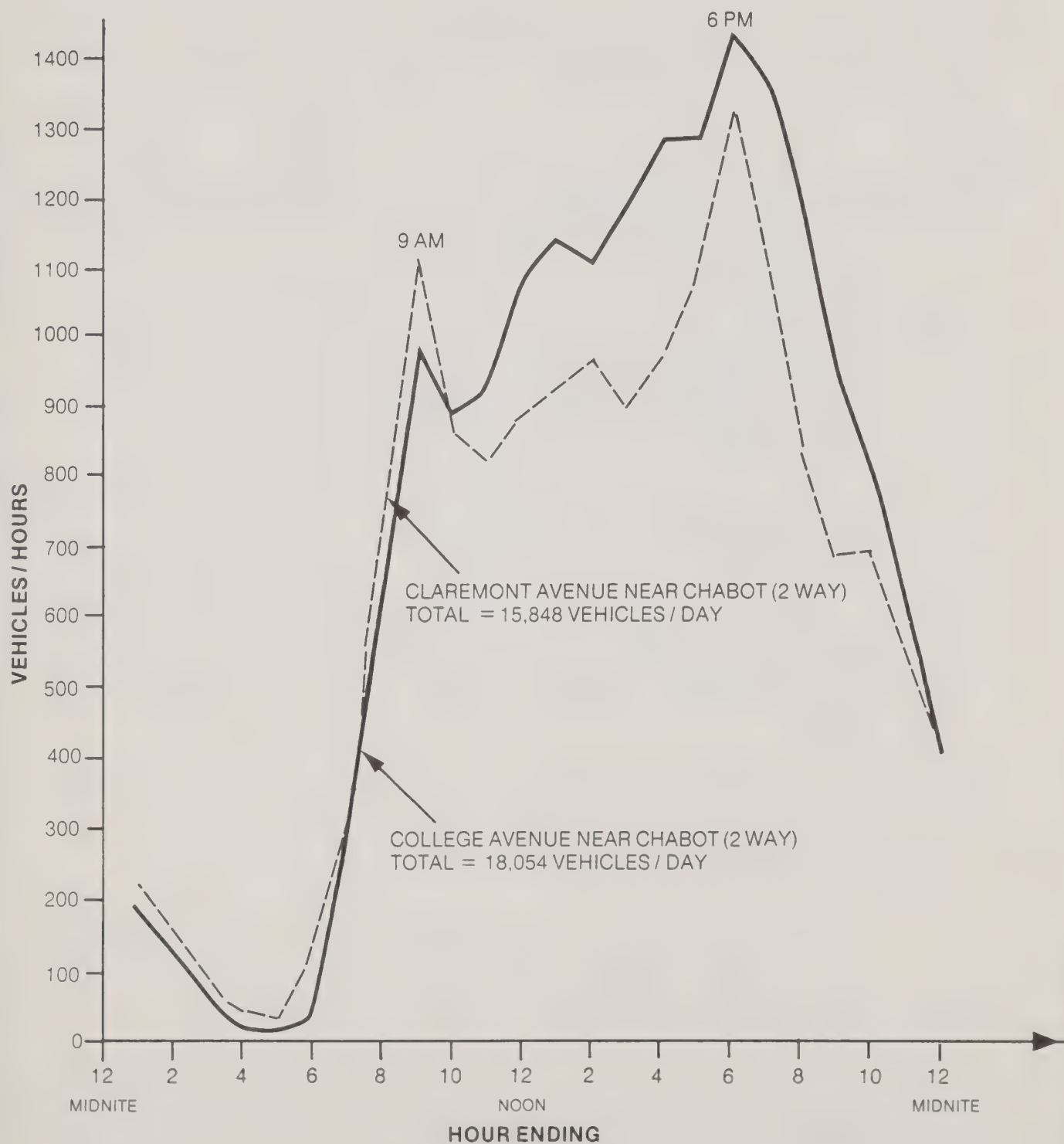


TABLE B-1
LEVEL-OF-SERVICE INTERPRETATION

Level-Of-Service	Description	Average Vehicle Delay (Seconds)	Volume to Capacity Ratio
A	Free Flow. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Insignificant delays.	5	0.0-0.59
B	Stable Operation. An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. Minimal delays.	5-15	0.60-0.69
C	Stable Operation. Major approach phase may become fully utilized. Most drivers feel somewhat restricted. Acceptable delays.	15-25	0.70-0.79
D	Approaching Unstable. Drivers may have to wait through more than one red signal indication. Queues develop but dissipate rapidly, without excessive delays.	25-40	0.80-0.89
E	Unstable Operation. Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. Significant delays.	40-60	0.90-0.99
F	Forced Flow. Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections. Excessive delays.	60	1.00 and above

Source: "Highway Capacity Manual", Highway Research Board, Special Report No. 87, Washington, D.C., 1965.

"Highway Capacity Manual", Transportation Research Board, Special Report No. 209, Washington, D.C., 1985.

TABLE B-2
SUMMARY OF SERVICE VEHICLES AT DREYER'S OAKLAND FACILITIES

A. Production

Average of five semi-trailer rigs arrive and leave the loading dock off Chabot Road between 7 a.m. and 4:30 p.m. These semis pick up the ice cream and deliver it to the Union City plant.

B. Raw Ingredient Receiving

All raw ingredient receiving occurs from loading dock off College Avenue except for the pecans, fruits, chocolate bits, etc. These arrive at the dock from Chabot Road.

6 a.m. - 7 a.m.	-	One 5,000 gallon liquid sugar tanker
7 a.m. - 9 p.m.	-	12 trucks per day at College Ave. dock and 14 trucks per day at Chabot Road dock
9 p.m. - 1 a.m.	-	Three double semis of dairy products
1 a.m. - 6 a.m.	-	No service activity

C. Dry Ingredient Receiving

All dry ingredient receiving occurs from loading dock of Claremont Avenue. Average of 10 small trucks arrive and leave the Claremont dock.

D. General Delivery Trucks for factory, office and restaurant amount to approximately 12 trucks per day.

TABLE B-3

17-Jan-89 02:31:13 PM

DREYERS EMPLOYEE SURVEY SUMMARY

1987-89 page1of2

DREYERS2.WK1

P8702*2

	OAKLAND OFFICE	%	LAFAYETTE OFFICE	%	TOTAL OFFICE	%	OAKLAND FACTORY	%
Where do you live?								
E/O TUNNEL	9.00	47.37	37.00	69.81	46.00	63.89	18.00	29.51
I-80 N	1.00	5.26	4.00	7.55	5.00	6.94	16.00	26.23
OAK/ALA	5.00	26.32	3.00	5.66	8.00	11.11	13.00	21.31
SOUTH	3.00	15.79	5.00	9.43	8.00	11.11	12.00	19.67
SF/PEN	1.00	5.26	4.00	7.55	5.00	6.94	2.00	3.28
	19.00	100.00	53.00	100.00	72.00	100.00	61.00	100.00
Commute mode?								
Driver	19.00	95.00	37.25	61.07	56.25	68.60	60.00	85.71
Passenger	0.00	0.00	5.58	9.15	5.58	6.81	2.00	2.86
AC	0.00	0.00	1.50	2.46	1.50	2.00	0.00	0.00
BART	1.00	5.00	16.67	27.32	17.67	21.54	4.00	5.71
Walk	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.86
Other	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.86
	20.00	100.00	61.00	100.00	81.00	98.95	70.00	100.00
Where do you Park?								
on-street	12.00	60.00	47.00	97.92	59.00	86.76	21.00	32.81
Dreyer's lot	5.00	25.00	0.00	0.00	5.00	7.35	37.00	57.81
other lots	3.00	15.00	1.00	2.08	4.00	5.88	6.00	9.38
	20.00	100.00	48.00	100.00	68.00	100.00	64.00	100.00
How often do you use the car during the day?								
2x	4.00	20.00	2.00	4.00	6.00	8.57	4.00	6.15
once	3.00	15.00	16.00	32.00	19.00	27.14	6.00	9.23
seldom	12.00	60.00	28.00	56.00	40.00	57.14	18.00	27.69
never	1.00	5.00	4.00	8.00	5.00	7.14	37.00	56.92
	20.00	100.00	50.00	100.00	70.00	100.00	65.00	100.00
What time do you arrive?								
pre 6:45	1.00	5.88	2.00	3.92	3.00	4.41	26.00	41.27
AM 7:15	1.00	5.88	12.00	23.53	13.00	19.12	9.00	14.29
7:45	8.00	47.06	15.00	29.41	23.00	33.82	5.00	7.94
8:15	5.00	29.41	11.00	21.57	16.00	23.53	4.00	6.35
8:45	1.00	5.88	9.00	17.65	10.00	14.71	1.00	1.59
9:15	0.00	0.00	1.00	1.96	1.00	1.47	0.00	0.00
aft 9:15	1.00	5.88	1.00	1.96	2.00	2.94	18.00	28.57
	17.00	100.00	51.00	100.00	68.00	100.00	63.00	100.00



		OAKLAND		LAFAYETTE		TOTAL		OAKLAND	
What time do		OFFICE		OFFICE		OFFICE		FACTORY	
you leave?			%		%		%		%
	pre 3:45	0.00	0.00	3.00	5.88	3.00	5.26	24.00	42.11
PM	4:15	0.00	0.00	6.00	11.76	6.00	10.53	9.00	15.79
	5:00	0.00	0.00	12.00	23.53	12.00	21.05	2.00	3.51
	5:30	9.00	52.94	12.00	23.53	21.00	36.84	1.00	1.75
	6:00	7.00	41.18	11.00	21.57	18.00	31.58	1.00	1.75
	6:30	1.00	5.88	3.00	5.88	4.00	7.02	1.00	1.75
	aft 6:30	0.00	0.00	4.00	7.84	4.00	7.02	19.00	33.33
		17.00	100.00	51.00	100.00	68.00	119.30	57.00	100.00

JANUARY 1989 SURVEY OF LAFAYETTE EMPLOYEES:

How do you commute to Lafayette office?	How would you commute to Oakland office?		%	Drivers to Laf.	Drivers to Oak.
No shift in modal split:				%	%
Driver	Driver	32.25	52.87	52.87	52.87
Passenger	Passenger	1.08	1.78	--	--
Passenger	Transit	0.17	0.27	--	--
Transit	Transit	3.00	4.92	--	--
Walk	Passenger	0.25	0.41	--	--
Shift towards private vehicle:					
Passenger	Driver	4.25	6.97	--	6.97
Walk	Driver	0.75	1.23	--	1.23
Shift away from private vehicle:					
Driver	Passenger	4.25	6.97	6.97	--
Driver	Transit	15.00	24.59	24.59	--

		61.00	100.00	84.42	61.06
Driver	Quit job	1.00			

		62.00			

Would you commute by public transit?		%
With no incentive	18.17	29.78
Cost \$1.00/day less	1.00	1.64
Cost \$2.00/day less	2.50	4.10
Would not use BART	28.17	46.18
Carpoolers	11.17	18.31
	61.00	100.00



TABLE B-4

09:59:55 AM
17-Jan-89

EMPLOYEE AND VISITOR TRIP GENERATION SUMMARY
DREYERS OFFICE PROJECT, OAKLAND

1.0

EMPLOYEE TRIP GENERATION

dreyers1 page1of6

	Exist. Off/Ret	Exist. Factory	Total Exist	Prop. Office	Prop. Retail	Prop. Restaura	Total Proposed	NET CHANGE
#of Employees	27.00	70.00	97.00	150.00	9.00	5.00	164.00	67.00
Daily Person Trip Rate per employee	3.50	3.50	3.50	3.50	3.50	3.50		3.50
Attendance Factor (%)	0.88	0.88	0.88	0.88	0.88	0.88		
AM peak hour person trip rate per employee	0.57	0.14	0.71	0.57	0.10	0.10		
PM Peak hour person trip rate per employee	0.68	0.04	0.72	0.68	0.68	0.68		

Total Daily Employee Trips

	Mode %	Exist. Off/Ret	Exist. Factory	Total Exist	Mode %	Proposed Office	Mode %	Proposed Retail	Mode %	Propose Restaur	Total Propose	NET CHANGE
Auto	86.00	71.52	185.42	256.93	70.40	325.25	63.30	17.55	63.30	9.75	352.54	95.61
Passeng	4.00	3.33	8.62	11.95	7.50	34.65	8.30	2.30	8.30	1.28	38.23	26.28
AC	2.00	1.66	4.31	5.98	2.50	11.55	3.70	1.03	3.70	0.57	13.15	7.17
BART	4.00	3.33	8.62	11.95	14.70	67.91	7.30	2.02	7.30	1.12	71.06	59.11
Other	4.00	3.33	8.62	11.95	4.90	22.64	17.40	4.82	17.40	2.68	30.14	18.19
Total	100.00	83.16	215.60	298.76	100.00	462.00	100.00	27.72	100.00	15.40	505.12	206.36
				298.76								



TABLE B-4 (CONTINUED)

dreyers1 page2of6

Total AM Peak Hour Employee Trips

	Mode %	Exist Off/Ret	Exist Factory	Total Exist	Mode %	Prop. Office	Mode %	Prop. Retail	Mode %	Prop. Restaur	Total Prop.	NET CHANGE
Auto	86.00	11.65	7.42	19.06	70.40	52.97	63.30	0.50	63.30	0.28	53.75	34.69
Passeng	4.00	0.62	0.34	0.96	7.50	5.64	8.30	0.07	8.30	0.04	5.75	4.78
AC	2.00	0.31	0.17	0.48	2.50	1.88	3.70	0.03	3.70	0.02	1.93	1.45
BART	4.00	0.62	0.34	0.96	14.70	11.06	7.30	0.06	7.30	0.03	11.15	10.19
Other	4.00	0.62	0.34	0.96	4.90	3.69	17.40	0.14	17.40	0.08	3.90	2.94
	100.00	13.80	8.62	22.43	100.00	75.24	100.00	0.79	100.00	0.44	76.47	54.05
			11.13			75.24					76.47	

Total PM Hour Peak Employee Trip

	Mode %	Exist Off/Ret	Exist Fact.	Total Exist	Mode %	Prop. Office	Mode %	Prop. Ret.	Mode %	Prop. Rest.	Total Prop.	NET CHANGE
Auto	86.00	13.89	2.12	16.01	70.40	63.19	63.30	3.41	63.30	1.89	68.49	52.48
Passeng	4.00	0.65	0.10	0.74	7.50	6.73	8.30	0.45	8.30	0.25	7.43	6.68
AC	2.00	0.32	0.05	0.37	2.50	2.24	3.70	0.20	3.70	0.11	2.55	2.18
BART	4.00	0.65	0.10	0.74	14.70	13.19	7.30	0.39	7.30	0.22	13.81	13.06
Other	4.00	0.65	0.10	0.74	4.90	4.40	17.40	0.94	17.40	0.52	5.86	5.11
	100.00	16.16	2.46	18.62	100.00	89.76	100.00	5.39	100.00	2.99	98.14	79.52



TABLE B-4 (CONTINUED)

2.0 VISITOR TRIP GENERATION

dreyers1 page3of6

	Exist. Office	Exist. Retail	Exist. Restaura	Exist. Factory	Total Exist.	Prop. Office	Prop. Retail	Prop. Restaura	Total Prop.	Total NET CHANGE
Daily visitor rate per 1000gsf	3.89	37.85	145.50			3.89	37.85	145.50		
Daily visitor auto/truck trips				150.00						
Building Size	6550.00	2600.00	750.00			49109.00	8699.00	1300.00		
Total visitor trips	25.48	98.41	109.13	150.00	383.01	191.03	329.26	189.15	709.44	326.43
AM Peak Hour	0.10	0.01	0.01	0.10		0.10	0.01	0.01		
PM Peak Hour	0.10	0.10	0.11	0.10		0.10	0.10	0.11		

TOTAL DAILY VISITOR TRIPS

	Mode %	Exist Office	Mode %	Exist. Retail	Mode %	Exist. Restaura	Mode %	Exist. Factory	Total Exist.	Mode %	Proposed Office	Mode %	Prop Retail	Mode %	Prop. Restaur	Total Proposed	NET CHANGE
Auto	86.00	21.91	41.30	40.64	51.70	56.42	27.00	40.50	159.47	86.00	164.29	41.30	135.98	51.70	97.79	398.06	238.59
Trucks	4.00	1.02	1.00	0.98	2.00	2.18	73.00	109.50	113.69	4.00	7.64	1.00	3.29	2.00	3.78	14.72	-98.97
Passenger	4.00	1.02	34.60	34.05	23.30	25.43	0.00	0.00	60.50	4.00	7.64	34.60	113.92	23.30	44.07	165.64	105.14
AC	2.00	0.51	0.00	0.00	4.00	4.37	0.00	0.00	4.87	2.00	3.82	0.00	0.00	4.00	7.57	11.39	6.51
Bart	2.00	0.51	0.00	0.00	1.90	2.07	0.00	0.00	2.58	2.00	3.82	0.00	0.00	1.90	3.59	7.41	4.83
Other	2.00	0.51	23.10	22.73	17.10	18.66	0.00	0.00	41.90	2.00	3.82	23.10	76.06	17.10	32.34	112.22	70.32
	100.00	25.48	100.00	98.41	100.00	109.13	100.00	150.00	383.01	100.00	191.03	100.00	329.26	100.00	189.15	709.44	326.43

TABLE B-4 (CONTINUED)

TOTAL AM PEAK HOUR VISITOR TRIPS

dreyers1 page 4of6

	Mode %	Exist Office	Mode %	Exist. Retail	Mode %	Exist. Restaura	Mode %	Exist. Factory	Total Exist.	Mode %	Proposed Office	Mode %	Propose Retail	Mode %	Propose Restaur	Total Proposed	NET CHANGE
Auto	86.00	2.19	41.30	0.41	51.70	0.56	27.00	4.05	7.21	86.00	16.43	41.30	1.36	51.70	0.98	18.77	11.55
Trucks	4.00	0.10	1.00	0.01	2.00	0.02	73.00	10.95	11.08	4.00	0.76	1.00	0.03	2.00	0.04	0.83	-10.25
Passenger	4.00	0.10	34.60	0.34	23.30	0.25	0.00	0.00	0.70	4.00	0.76	34.60	1.14	23.30	0.44	2.34	1.65
AC	2.00	0.05	0.00	0.00	4.00	0.04	0.00	0.00	0.09	2.00	0.38	0.00	0.00	4.00	0.08	0.46	0.36
Bart	2.00	0.05	0.00	0.00	1.90	0.02	0.00	0.00	0.07	2.00	0.38	0.00	0.00	1.90	0.04	0.42	0.35
Other	2.00	0.05	23.10	0.23	17.10	0.19	0.00	0.00	0.46	2.00	0.38	23.10	0.76	17.10	0.32	1.47	1.00
	100.00	2.55	100.00	0.98	100.00	1.09	100.00	15.00	19.62	100.00	19.10	100.00	3.29	100.00	1.89	24.29	4.66
			100.00						19.62							24.29	

TOTAL PM PEAK HOUR VISITOR TRIPS

	Mode %	Exist Office	Mode %	Exist. Retail	Mode %	Exist. Restaura	Mode %	Exist. Factory	Total Exist.	Mode %	Proposed Office	Mode %	Propose Retail	Mode %	Propose Restaur	Total Proposed	NET CHANGE
Auto	86.00	2.19	41.30	4.06	51.70	6.21	27.00	4.05	16.51	86.00	16.43	41.30	13.60	51.70	10.76	40.78	24.27
Trucks	4.00	0.10	1.00	0.10	2.00	0.24	73.00	10.95	11.39	4.00	0.76	1.00	0.33	2.00	0.42	1.51	-9.88
Passenger	4.00	0.10	34.60	3.40	23.30	2.80	0.00	0.00	6.30	4.00	0.76	34.60	11.39	23.30	4.85	17.00	10.70
AC	2.00	0.05	0.00	0.00	4.00	0.48	0.00	0.00	0.53	2.00	0.38	0.00	0.00	4.00	0.83	1.21	0.68
Bart	2.00	0.05	0.00	0.00	1.90	0.23	0.00	0.00	0.28	2.00	0.38	0.00	0.00	1.90	0.40	0.78	0.50
Other	2.00	0.05	23.10	2.27	17.10	2.05	0.00	0.00	4.38	2.00	0.38	23.10	7.61	17.10	3.56	11.55	7.17
	100.00	2.55	100.00	9.84	100.00	12.00	100.00	15.00	39.39	100.00	19.10	100.00	32.93	100.00	20.81	72.84	33.44
			100.00						39.39							72.84	

TABLE B-4 (CONTINUED)

TOTAL TRIP GENERATION (EMPLOYEE+VISITOR)

dreyers1 page5of6

DREYERS ICE CREAM OFFICE PROJECT, OAKLAND

	Exist. Office	Exist. Retail	Exist. Restaur	Exist. Factory	Total Exist	Prop. Office	Prop. Retail	Prop. Restaura	Total Prop.	Net Change	Net Veh Change
Auto	93.43	40.64	56.42	225.92	416.41	489.54	153.53	107.54	750.61	334.20	334.20
Truck	1.02	0.98	2.18	109.50	113.69	7.64	3.29	3.78	14.72	-98.97	-98.97
Passenger	4.35	34.05	25.43	8.62	72.45	42.29	116.22	45.35	203.87	131.42	-----
AC	2.17	0.00	4.37	4.31	10.85	15.37	1.03	8.14	24.53	13.68	235.23
BART	3.84	0.00	2.07	8.62	14.53	71.73	2.02	4.72	78.48	63.94	
OTHER	3.84	22.73	18.66	8.62	53.85	26.46	80.88	35.02	142.36	88.51	
TOTAL	108.64	98.41	109.13	365.60	681.77	653.03	356.98	204.55	1214.56	532.79	
									1214.56		

AM PEAK HOUR PERSON TRIP SUMMARY

	Exist. Office	Exist. Retail	Exist. Restaur	Exist. Factory	Total Exist	Prop. Office	Prop. Retail	Prop. Restaura	Total Prop.	Net Change	Net Veh Change	IN	OUT
Auto	13.84	0.41	0.56	11.47	26.28	69.40	1.86	1.26	72.52	46.24	46.24	45.34	0.90
Truck	0.10	0.01	0.02	10.95	11.08	0.76	0.03	0.04	0.83	-10.25	-10.25	-4.86	-5.39
Passenger	0.72	0.34	0.25	0.34	1.66	6.41	1.20	0.48	8.09	6.43	-----	-----	-----
AC	0.36	0.00	0.04	0.17	0.57	2.26	0.03	0.09	2.38	1.81	35.99	40.48	-4.49
BART	0.67	0.00	0.02	0.34	1.03	11.44	0.06	0.07	11.57	10.54			
OTHER	0.67	0.23	0.19	0.34	1.43	4.07	0.90	0.40	5.37	3.94			
TOTAL AM PK HOUR	16.35	0.98	1.09	23.62	42.05	94.34	4.08	2.33	100.76	58.71			

TABLE B-4 (CONTINUED)

dreyers1 page606

PM PEAK HOUR PERSON TRIP SUMMARY

	Exist. Office	Exist. Retail	Exist. Restaur	Exist. Factory	Total Exist	Prop. Office	Prop. Retail	Prop. Restaura	Total Prop.	Net Change	Net Veh Change	IN	OUT
Auto	16.09	4.06	6.21	6.17	32.53	79.62	17.01	12.65	109.28	76.75	76.75	12.96	63.79
Truck	0.10	0.10	0.24	10.95	11.39	0.76	0.33	0.42	1.51	-9.88	-9.88	-5.21	-4.68
Passenger	0.75	3.40	2.80	0.10	7.05	7.50	11.84	5.10	24.43	17.38	-----	-----	-----
AC	0.37	0.00	0.48	0.05	0.90	2.63	0.20	0.94	3.77	2.86	66.87	7.76	59.11
BART	0.70	0.00	0.23	0.10	1.02	13.58	0.39	0.61	14.58	13.56			
OTHER	0.70	2.27	2.05	0.10	5.12	4.78	8.54	4.08	17.40	12.28			
	18.70	9.84	12.00	17.46	58.01	108.86	38.31	23.80	170.97	112.96			
					58.01				170.97				



TABLE B-5

MODAL SPLIT SUMMARY
DREYERS OFFICE PROJECT, OAKLANDEMPLOYEES

	EXIST. OFFICE	EXIST. FACTORY	PROPOSED OFFICE	PROPOSED RETAIL	PROPOSED RESTAURAN
DRIVE	86.0	86.0	70.3	63.3	63.3
PASSENGER	4.0	4.0	7.5	8.3	8.3
AC	2.0	2.0	2.5	3.7	3.7
BART	4.0	4.0	14.7	7.3	7.3
OTHER	4.0	4.0	4.9	17.4	17.4
	100.0	100.0	100.0	100.0	100.0
	(1)	(1)	(1,3,4)	(2)	(2)

1. SOURCE: THOMSON ENGINEERS SURVEY OF DREYERS EMPLOYEES, MAY 87
2. SOURCE: ROCKRIDGE BACKGROUND PAPERS ON SPECIFIC PLAN, MAY 87
3. SOURCE: 1980 CENSUS INFORMATION FOR JOURNEY TO WORK
4. SOURCE: THOMSON ENGINEERS SURVEY OF DREYERS EMPLOYEES, JAN 89

VISITORS/PATRONS

	EXIST. OFFICE	EXIST. FACTORY	PROPOSED OFFICE	PROPOSED RETAIL	PROPOSED RESTAURAN
DRIVE	86.0	27.0	86.0	41.3	51.7
TRUCK	4.0	73.0	4.0	1.0	2.0
PASSENGER	4.0	0.0	4.0	34.6	23.3
AC	2.0	0.0	2.0	0.0	4.0
BART	2.0	0.0	2.0	0.0	1.9
OTHER	2.0	0.0	2.0	23.1	17.1
	100.0	100.0	100.0	100.0	100.0
	(1)	(1)	(1)	(2)	(2,5)

5. SOURCE: THOMSON ENGINEERS SURVEY, JULY 1988

TABLE B-6

=====

RETAIL VISITOR TRIP RATE

=====

RETAIL VISITOR TRIP RATE = 37.85 VISITOR TRIPS PER DAY PER 1000 GSFLA

THOMSON SURVEY JULY, 1988	37.85
NOON HOUR RATE	20.00 %
AM PEAK HOUR RATE	1.00 %
PM PEAK HOUR RATE IS FROM ITE	9.50 %
DIRECTIONAL DISTRIBUTION	8.30 %
	0.51 OUT
	0.49 IN

FOR MODE SPLIT SEE MODAL SUMMARY TABLE

SOURCES:

SURVEY BY THOMSON ENGINEERS, JULY 1988

ITE TRIP GENERATION MANUAL, 1988

FOR SHOPPING CENTRE OF 400,000 GSFA

43 VEHICULAR TRIPS PER DAY

9.5 % PEAK HOUR @ NOON ON A WEEKDAY

8.3 % PEAK HOUR BETWEEN 5-6 PM ON A WEEKDAY

49% IN 51% OUT DIRECTIONAL DISTRIBUTION IN
PM PEAK HOUR

CALTRANS PROGRESS REPORTS

OUT OF DATE

CITY OF OAKLAND

CENTRAL DISTRICT DEVELOPMENT PLAN

6.2 VEHICLES PER DAY

SUPPORT RETAIL

TABLE B-6 (CONTINUED)

page2of2

=====

RESTAURANT VISITOR TRIP RATE

=====

RESTAURANT VISITOR TRIP RATE = 145.5 VISITOR TRIPS PER DAY PER 1000 GSFLA

DAILY PERSON TRIP RATE PER 1000GSFLA	145.50
NOON HOUR	20.00 %
PM PEAK HOUR	11.00 %
AM PEAK HOUR RATE	6.50 %
DIRECTIONAL DISTRIBUTION	40.00 % OUT
	60.00 % IN

MODE SPLIT SEE MODAL SPLIT SUMMARY TABLE

SOURCES:

THOMSON ENGINEERS SURVEY

FRIDAY AND SATURDAY JULY 15 & 16, 1988

145.50 PERSON TRIPS PER WEEKDAY / 1000 GSF
20.00 % @ NOON HOUR

ITE TRIP GENERATION MANUAL 1988

95.6 VEHICULAR TRIPS PER DAY PER 1000 GSFA
10.70 % PM PEAK HOUR
6.50 % AM PEAK HOUR

CALTRANS PROGRESS REPORTS

PROGRESS REPORT #14

94.60 VEHICULAR TRIPS PER DAY / 1000 GSF
1.90 VEHICULAR OCCUPANCY
20.00 % NOON HOUR
60.00 % IN @ NOON HOUR
40.00 % OUT @ NOON HOUR

=====

OFFICE VISITOR TRIP RATE

=====

OFFICE VISITOR TRIP RATE = 3.89 VISITOR TRIPS PER DAY PER 1000 GSFLA

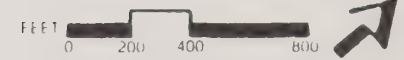
SOURCES:

OAKLAND CENTRAL DISTRICT PLAN

18.00 PERSON TRIPS PER DAY & 4 EMPLOYEES
PER 1000 GSF
0.88 ATTENDANCE FACTOR
0.82 OUTSIDE LUNCH FACTOR
NJTW TRIPS= JTW TRIPS- LUNCH TRIPS

ROUTES TO WORK

FIGURE B-2



SOURCE: EMPLOYEE SURVEY, JUNE 1987

Dreyer's Grand Ice Cream Office Project EIR

ROUTE	% OF TOTAL
	47.2%
	8.2%
	3.5%
	2.8%
	5.6%
	5.6%
	2.8%
	2.8%
	100%



ROUTES HOME

FIGURE B-3



Dreyer's Grand Ice Cream Office Project EIR	
ROUTE	% OF TOTAL
	28.6%
	8.6%
	17.1%
	22.9%
	5.6%
	11.4%
	5.8%
	100%

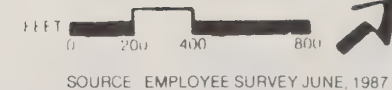
APPENDIX C

PARKING

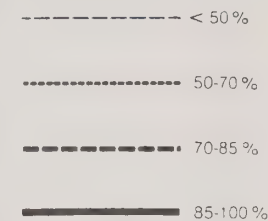
Figure C-1	Parking Occupancy: Weekday 12 Midnight - 6 AM
Figure C-2	Parking Occupancy: Weekday 10-2 PM
Figure C-3	Parking Occupancy: Weekday 6-8 PM
Figure C-4	Parking Occupancy: Friday 6-8 PM
Figure C-5	Parking Occupancy: Saturday 10 AM - 2 PM
Table C-1	Existing Parking Inventory and Occupancy for Varying Distances from Dreyer's Site.
Table C-2	Existing Parking Conditions, Inventory and Occupancy Within 1,500 Feet of the Project Site.
Table C-3	Weekday On-Street Parking Turnover Summary Within 750 Feet of the Project Site
Table C-4	Parking Demand Summary - Long and Short Term Demand
Table C-5	Visitor/Patron Parking Generation Rate Summary - Retail, Restaurant, Office
Table C-6	Project Parking Supply Summary

PARKING OCCUPANCY WEEKDAY 12MIDNIGHT - 6AM

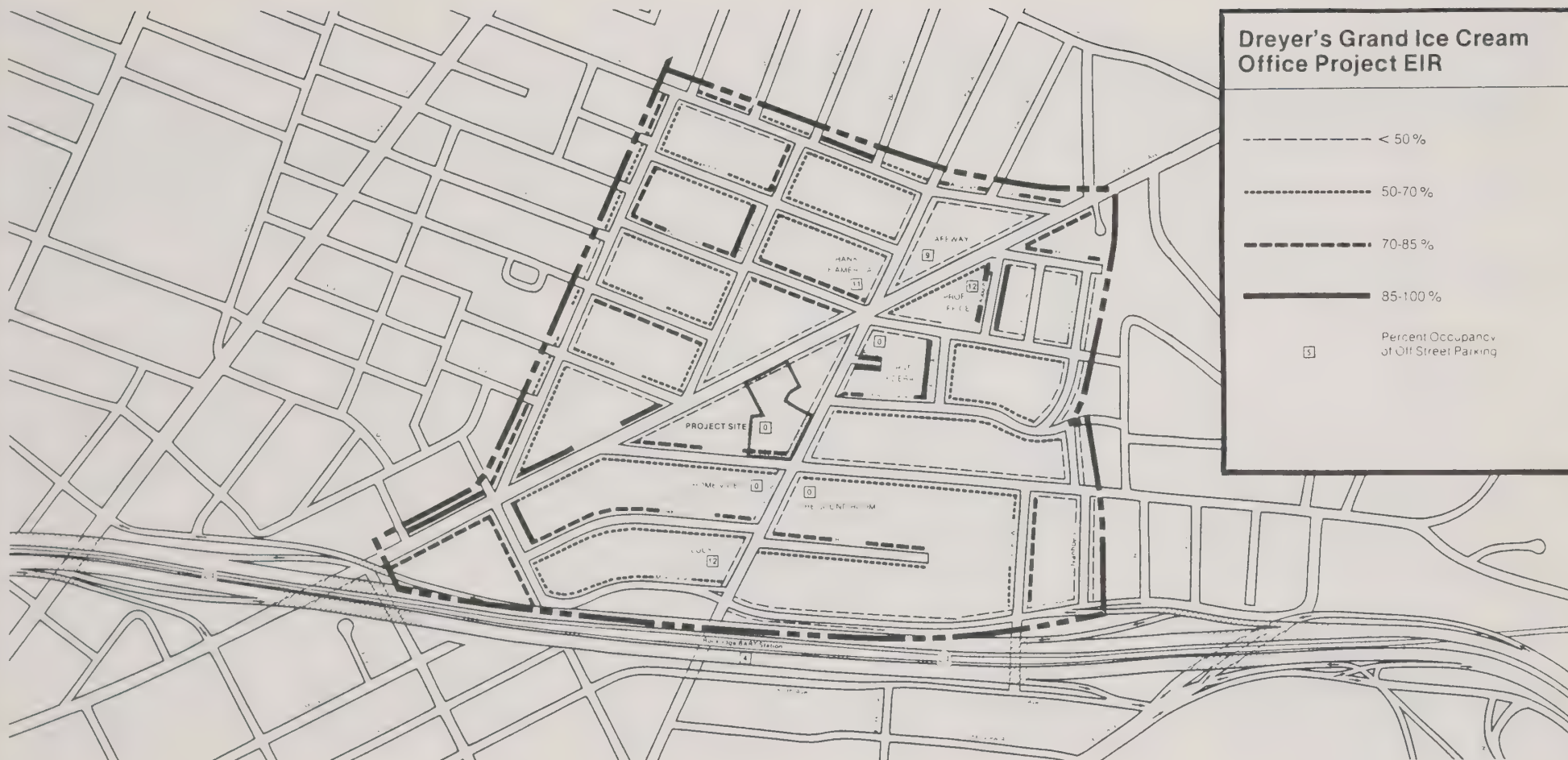
FIGURE C-1



Dreyer's Grand Ice Cream Office Project EIR



Percent Occupancy
of Off Street Parking



PARKING OCCUPANCY WEEKDAY 10 - 2PM

FIGURE C-2

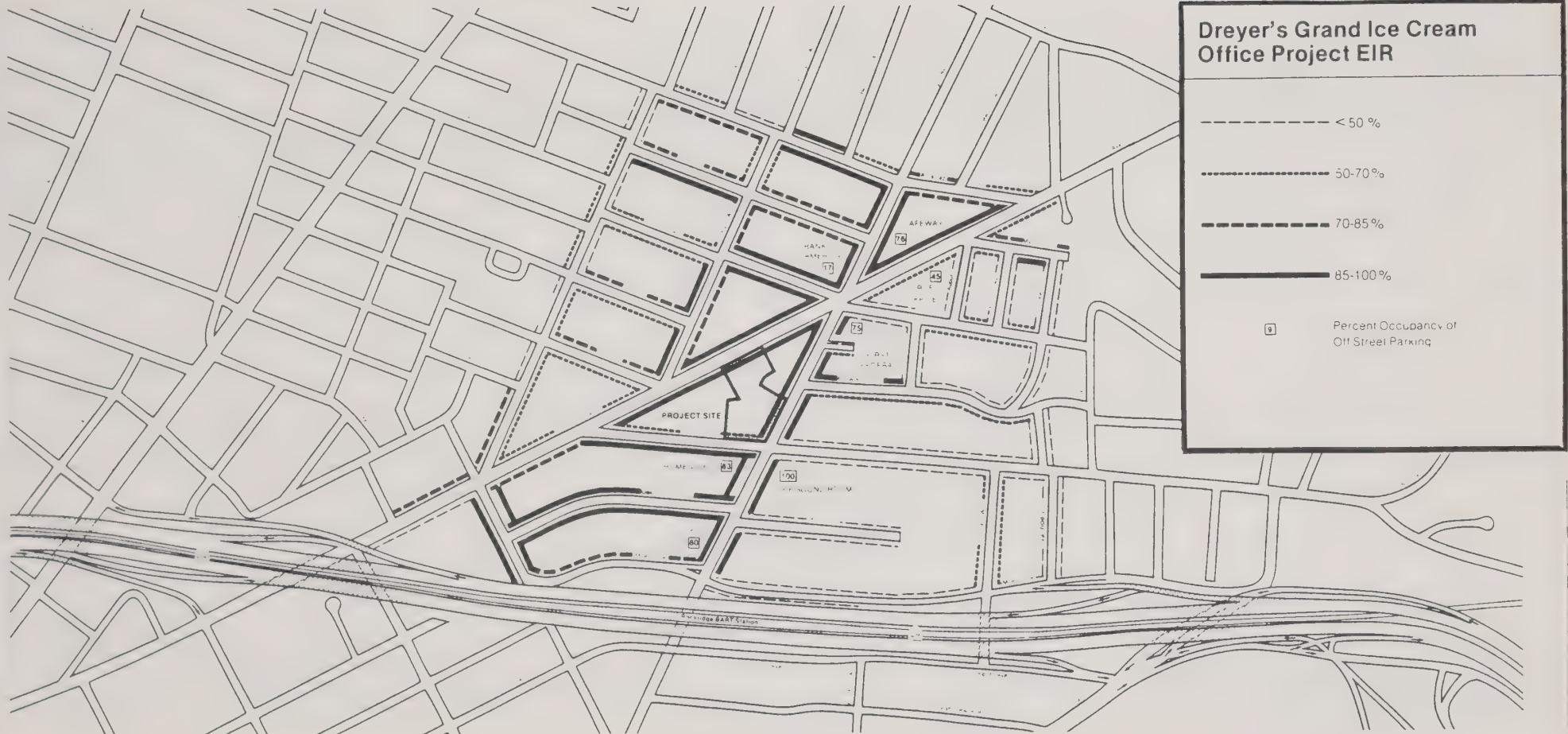
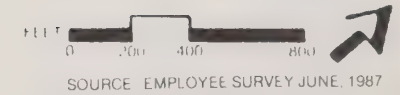


SOURCE: EMPLOYEE SURVEY, JUNE, 1987



PARKING OCCUPANCY WEEKDAY 6 - 8PM

FIGURE C-3



APRIL 1987

eip

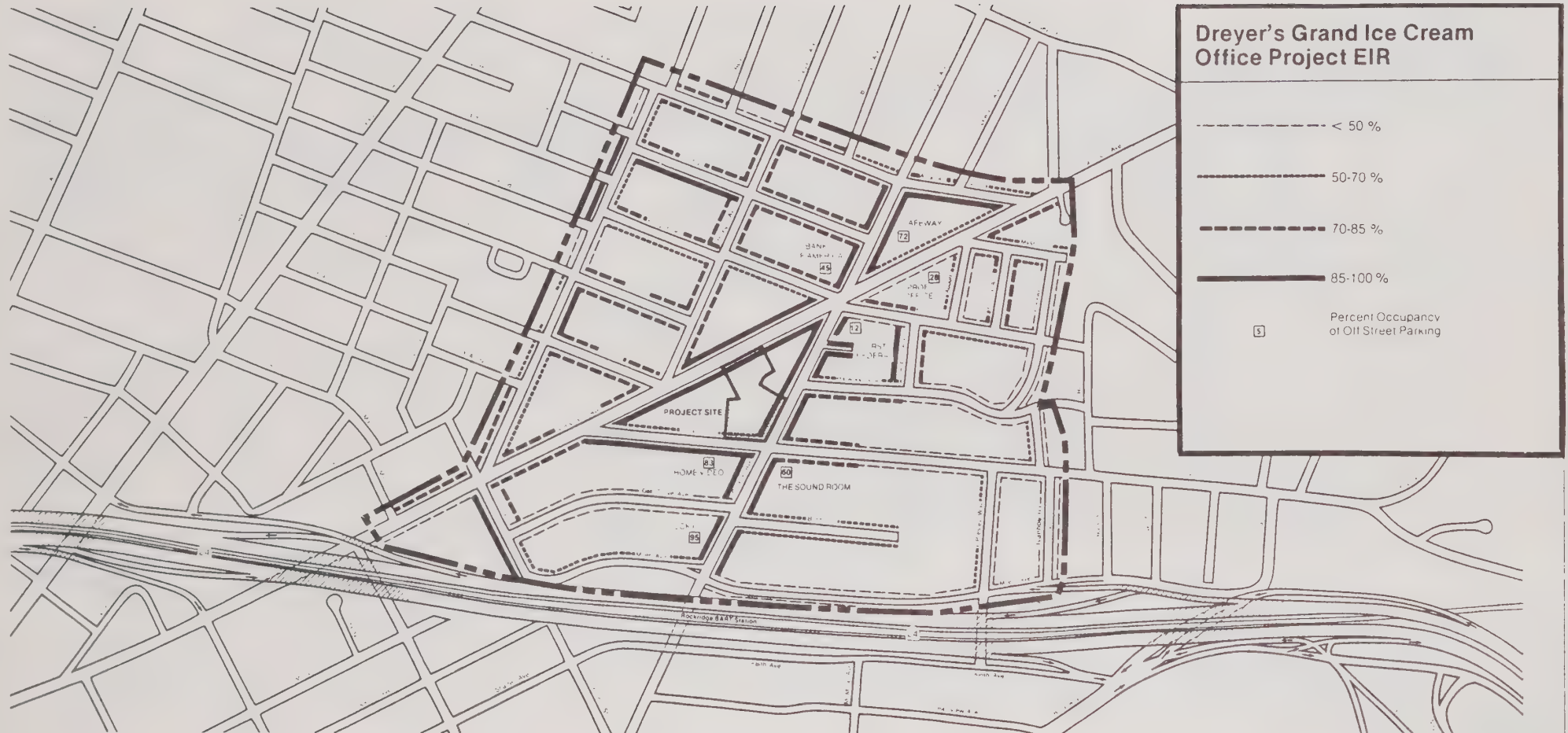
54-0-3

PARKING OCCUPANCY FRIDAY 6 - 8PM

FIGURE C-4



SOURCE: EMPLOYEE SURVEY JUNE, 1987



PARKING OCCUPANCY
SATURDAY 10AM - 2PM

FIGURE C-5

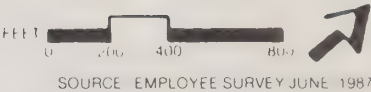


TABLE C-1
EXISTING PARKING INVENTORY AND OCCUPANCY FOR VARYING DISTANCES FROM DREYER'S SITE
DREYER'S ICE CREAM OFFICE PROJECT EIR

Study Area	Inventory		Weekday Occupancy			
	On-Street	Off-Street	10 am - 2 pm		6 pm - 8 pm	
			On-Street	Off-Street	On-Street	Off-Street
Within 500' Of Dreyer's	190	46	87%	67%	70%	63%
Within 750' Of Dreyer's	408	169	82%	88%*	78%	74%
Within 1,000'	673	904	71%	95%**	71%	55%
Within 1,500'	1,769	1,084	62%	88%**	61%	57%

* Includes Lucky Lot

** Includes Lucky & BART

TABLE C-2
EXISTING PARKING CONDITIONS
Parking Inventory and Parking Occupancy Within 1,500 Feet of the Project Site
DREYER'S GRAND ICE CREAM OFFICE PROJECT EIR

		<u>On-Street</u>	<u>Off-Street</u>						<u>Off-Street</u>	<u>On and Off</u>
			<u>Dreyer's</u>	<u>BART</u>	<u>Lucky</u>	<u>BofA</u>	<u>Safeway</u>	<u>Other</u>	<u>Total</u>	<u>Street</u>
Inventory	Parking Spaces	1,769 ¹	35	710	100	35	110	89	1,084	2,852
Occupancy (Percentage; May and June, 1987)										
Weekday	Midnight - 6 AM	52	0	4	12	7	9	10	6	34
	6 AM - 8 AM	52	51	6	23	17	16	16	11	37
	10 AM - 2 PM	62	66	100	100	29	35	73	88	72
	6 PM - 8 PM	61	54	54	80	17	76	54	57	60
Friday	6 PM - 8 PM	61	46	54	95	46	73	33	58	60
Saturday	10 AM - 2 PM	59	37	34	94	100	96	52	50	56

¹Consists of 1,639 unmetered spaces, 118 two-hour meters, seven one-hour meters, and five 30-minute meters.

Source: EIP Associates/Thomson Engineers.

TABLE C-3
WEEKDAY ON-STREET PARKING TURNOVER SUMMARY
Weekday Within 750 Feet of the Project Site

BLOCK (Both Sides of Street)	NO. OF PARKING SPACES ON-STREET (Weekday)	NO. OF VEHICLES PARKED BETWEEN 7:15 AM - 4:30 PM	AVERAGE OCCUPANCY (DAYTIME PEAK) (12:30-1:30 PM) (%)	DURATION OF PARKING		
				0-2 Hours (%)	2-4 Hours (%)	Above 4 Hrs (%)
Chabot Road (Between College & Claremont)	70	115	75% (84%)	19%	17%	64%
College Avenue (Between Chabot & Claremont)	36	173	59% (94%)	96	2	2
College Avenue (Between Chabot & Oak Grove)	17	66	62% (65%)	90	4	6
Claremont (Between Chabot & College)	86	128	48% (57%)	37	18	45
Chabot Road (650 Ft. East of College)	43	78	85% (72%)	30	2	68
Harwood Avenue (Between College and Auburn)	38	91	87% (95%)	36	7	57
Birch Court (East of College)	70	115	70% (83%)	35	9	56
Oakgrove (600 Ft. West of College)	48	77	67% (77%)	36	5	59
TOTAL	408	843	68% (82%)	54%	8%	34%

TABLE C-4

18-Jan-89 12:17:10 PM

PARKING DEMAND SUMMARY
 DREYERS ICE CREAM OFFICE PROJECT, OAKLAND

TRAFGEN DREYERS3.WK1

P8702*2

page 1 of 1

LONG TERM PARKING DEMAND

	Exist. Office	Exist. Restaur	Exist. Retail	Exist. Factory	Exist. Total	Proposed Office Exist.	Proposed Office Lafayette	Proposed Office New	Proposed Retail	Proposed Restaurant	Proposed Total
--	---------------	----------------	---------------	----------------	--------------	------------------------	---------------------------	---------------------	-----------------	---------------------	----------------

Number of employees present @ peak	22.0	3.0	3.0	35.0	63.0	20.0	70.0	60.0	9.0	6.0	165.0
Attendance factor (%)	88.0	88.0	88.0	88.0		88.0	88.0	88.0	88.0	88.0	
Percent using car	86.0	63.3	63.3	86.0		86.0	60.0	75.0	63.3	63.3	
Long term Demand	16.6	1.7	1.7	26.5	46.5	15.1	37.0	39.6	5.0	3.3	100.1 =====

SHORT TERM PARKING DEMAND

	Exist. Office	Exist. Restaur	Exist. Retail	Exist. Factory	Exist. Total	Proposed Office	Proposed Retail	Proposed Restaurant	Proposed Total
--	---------------	----------------	---------------	----------------	--------------	-----------------	-----------------	---------------------	----------------

Short Term demand rate per 1000gsf	0.2	7.3	2.0			0.1	2.0	7.3		
Building Size	6550.0	1300.0	2050.0			49109.0	7999.0	2000.0		
Short term demand	1.2	9.4	4.0	10.0	24.6	4.4	15.7	14.5	34.6 =====	

TOTAL PARKING DEMAND (SHORT AND LONG TERM)

	Exist. Office	Exist. Restaur	Exist. Retail	Exist. Factory	Exist. Total	Proposed Office Oakland	Proposed Office Lafayette	Proposed Office New	Proposed Retail	Proposed Restaurant	Proposed Total
--	---------------	----------------	---------------	----------------	--------------	-------------------------	---------------------------	---------------------	-----------------	---------------------	----------------

Total Long Term Demand	16.6	1.7	1.7	26.5	46.5	15.1	37.0	39.6	5.0	3.3	100.1
Short term demand	1.2	9.4	4.0	10.0	24.6			4.4	15.7	14.5	34.6
TOTAL PARKING DEMAND	17.8	11.1	5.7	36.5	71.1			44.0	20.7	17.8	134.6 =====

Project Alt with TSM Long Term 96.0
 Short Term 34.6

Total for Alt with TSM Program 130.6 =====



TABLE C-5
VISITOR/PATRON PARKING GENERATION RATE SUMMARY

DREYERS OFFICE PROJECT, OAKLAND

=====

RETAIL - PATRON PARKING DEMAND RATES

=====

SHORT TERM PARKING DEMAND RATE FOR THE RETAIL ON A WEEKDAY = 1.96 SPACES PER 1000 GSFLA

SOURCES:

THOMSON ENGINEERS SURVEY JULY,1988	1.96 PARKING SPACES PER 1000 GSFLA DURING PEAK
ITE PARKING GENERATION MANUAL 1988	3.23 PARKING SPACES PER 1000 GSFLA * ON A WEEKDAY FOR SHOPPING CENTER
SHARED PARKING BY BARTON ASCHMAN ASSOC URBAN LAND INSTITUTE	3.80 PARKING PER 1000 GSFLA * ON A WEEKDAY FOR 400,000SQ.FT. RETAIL FOR SUBURBAN LOCATION
OAKLAND CENTRAL DISTRICT DEVELOPMENT PLAN	0.70 PARKING SPACES PER 1000 GSFLA STAND ALONE RETAIL IN DOWNTOWN OAKLAND

=====

RESTAURANT - PATRON PARKING DEMAND RATES

=====

SHORT TERM PARKING DEMAND RATE FOR THE RESTAURANT ON A WEEKDAY = 7.25 SPACES PER 1000 GSFLA

SOURCES:

THOMSON ENGINEERS SURVEY JULY, 1988	7.25 PARKING SPACES PER 1000GSFLA DURING PEAK ON FRIDAY
	13.83 PARKING SPACES PER 1000 GSFLA DURING PEAK ON SATURDAY
ITE TRIP GENERATION MANUAL 1988	12.49 PARKING SPACES PER 1000 GSFLA * FOR QUALITY RESTAURANT ON A WEEKDAY
	9.08 PARKING SPACES PER 1000 GSFLA * FOR FAMILY RESTAURANT ON A WEEKDAY
	9.95 PARKING SPACES PER 1000 GSFLA * FOR FAST FOOD RESTAURANT ON A WEEKDAY



TABLE C-5 ..(CONTINUED)

SHARED PARKING REPORT BY BARTON ASCHMAN ASSOC
URBAN LAND INSTITUTE

20.00 PARKING SPACES PER 1000 GSFLA
SUBURBAN AREA *

* includes employee parking

=====

OFFICE - VISITOR PARKING DEMAND RATES

=====

SHORT TERM PARKING DEMAND RATE FOR OFFICE ON A WEEKDAY = 0.09 SPACES PER 1000 GSFLA

SOURCES:

OAKLAND CENTRAL DEVELOPMENT PLAN

0.09 PER 1000 GSFLA

FOR JACK LONDON SQUARE, 79% AUTO DRIVER TRIPS

1.25 PER 1000 GSFLA FOR JACK LONDON SQUARE, RATE

'INCLUDES EMPLOYEE AND VISITOR DEMAND RATES

ITE PARKING GENERATION MANUAL 1988

2.52 PER 1000 GSFLA

FOR SUBURBAN AREA AND THE RATE INCLUDES EMPLO
PARKING DEMAND



TABLE C-6

PROJECT PARKING SUPPLY SUMMARY:

Dreyers8

Pagelof1

19-Jan-89

DREYER'S PROJECT PER FIGURE 3-4 (SUBSTANDARD):

	Total:	Retail:	Office:	Garage:
Full Size	86	24	62	--
Handicapped	4	2	2	--
Compact	42	0	42	--
Leased Spaces	5	--	--	5
Totals	137	26	106	5

DREYER'S PROJECT WITH MITIGATION:

	Total:	Back Lot:	Front Lot:	Garage:
Full Size	87	50	37	--
Handicapped (H)	4	0	4	--
Compact (C)	42	20	22	--
Leased Spaces	5	--	--	5
Totals	138	70	63	5

ALTERNATIVE II (ONE RESIDENCE AND TANDEM):

	Total:	Back Lot:	Front Lot:	Garage:
Full Size	71	44	27	--
Handicapped (H)	4	0	4	--
Compact (C)	47	27	20	--
Tandem-2nd Row (T)	12	12	0	--
Leased Spaces	5	--	--	5
Totals	139	83	51	5

APPENDIX D

FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

APPENDIX D

FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL ACOUSTICS

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in Table D-1.

Most of the sounds which we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measures is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-levels measured in the environment and in industry are shown in Figure D-2 for different types of noise.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. They are the A-weighted noise levels equaled or exceeded during 10%, 50%, and 90% of a stated time period. A single number descriptor called the Leq is now also widely used. The Leq is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, Ldn (day-night average sound level), was developed. The Ldn divides the 24-hour day into the daytime of 7:00 am to 10:00 pm and the nighttime of 10:00 pm to 7:00 am. The nighttime noise level is

weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average which includes both an evening and nighttime weighting.

The effects of noise on people can be listed in three general categories:

- o subjective effects of annoyance, nuisance, dissatisfaction
- o interference with activities such as speech, sleep, learning
- o physiological effects such as startling, hearing loss

The levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Workers in industrial plants can experience noise in the last category. Unfortunately, there is as yet no completely satisfactory way to measure the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise.

Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of the existing environment to which one has adapted: the so-called "ambient". In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by the hearers.

With regard to increases in A-weighted noise level, knowledge of the following relationships will be helpful in understanding this report.

- o Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.
- o Outside of the laboratory, a 3 dB change is considered a just-perceivable difference.
- o A change in level of at least 5 dB is required before any noticeable change in community response would be expected.
- o A 10 dB change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

TABLE D-1

TERM	DEFINITION
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dB	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
L10, L50, L90	The A-weighted noise levels that are exceeded 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to levels in the evening from 7 pm to 10 pm and after addition of 10 decibels to sound levels in the night between 10 pm and 7 am.
Day-Night Noise Level, Ldn	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10 pm and 7 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Table D-2

TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

<u>At a Given Distance From Noise Source</u>	<u>A-Weighted Sound Level in Decibels</u>	<u>Noise Environments</u>	<u>Subjective Impression</u>
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Pile Driver (50') Ambulance Siren (100')	100		Very Loud
	90	Boiler Room	
Freight Cars (50')		Printing Press Plant	
Pneumatic Drill (50')	80	In Kitchen with Garbage	
Freeway (100')		Disposal Running	
	70		Moderately Loud
Vacuum Cleaner (10')	60	Data Processing Center	
		Department Store	
Light Traffic (100')	50	Private Business Office	
Large Transformer (200')			
	40		Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		
	0		Threshold of Hearing

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